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ABSTRACT

Presentations at a seminar on systemwide tracking that grew out of efforts to promote implementation of South Carolina's desegregation plan are included. Two subjects were the focus: retention and the use of monitored developmental programs as a means of retention and of safeguarding quality. Essays include "Systemwide Student Tracking" (Delores Auzenne), which gives background on the use of tracking programs and procedures in the Florida system; "Statewide Student Tracking" (Larry Hayes), on the objectives and current status of tracking in Oklahoma; "Improving Desegregation Planning and Higher Education in Tennessee: Student Information System (SIS), Retention and Progression" (Michael Nettles), focusing on student data needs; "Retention and Tracking: The Role of Faculty" (Marie Jean Lederman) in the City University of New York system; "Retention: A Follow-Up Study of Entering Freshmen at the City University of New York" (Michael Ribaudo), which discusses a recently-undertaken tracking study of 33,000 students; and "ACT 101: The State of Pennsylvania Higher Education Program for Disadvantaged Students" (Conrad Jones) outlining a successful 10-year-old program, its evolution and evaluation. (MSE)

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SYSTEMWIDE STUDENT TRACKING AND RETENTION PROGRAMS

A SPECIAL SEMINAR

EDITED BY

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U.S. DEPARTMENT OF EDUCATION
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TABLE OF CONTENTS

	Page Number
PREFACE	iii
Systemwide Student Tracking Delores Auzenne Special Assistant to the Chancellor and Director of Equal Opportunity Programs State University System of Florida Tallahassee, Florida 32301	1
Statewide Student Tracking Larry Hayes Director of Research and Planning Information Oklahoma State Regents for Higher Education Oklahoma City, Oklahoma 73105	11
Improving Desegregation Planning and Higher Education in Tennessee: Student Information System, Retention and Progression Michael Nettles Assistant Director for Academic Affairs Tennessee Higher Education Commission Nashville, Tennessee 37219	31
Retention and Tracking: The Role of Faculty Marie Jean Lederman University Dean for Academic Affairs City University of New York New York, New York 10021	54
Retention: A Follow-Up Study of Entering Freshmen at the City University of New York Michael Ribaudo University Assistant Dean for Academic Affairs City University of New York New York, New York 10021	61

ACT 101: The State of Pennsylvania Higher Education Program for Disadvantaged Students 68

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Preface

The Institute for Services to Education's Desegregation Support Center sponsored a special seminar on systemwide tracking on November 13-14, 1981. The seminar grew out of an effort to promote the implementation of the South Carolina Desegregation Plan through introducing two neglected subjects (retention and the use of monitored developmental programs as one means of retention) and through effecting an exchange of information on these subjects among higher education officials from South Carolina and other selected states. A viable statewide desegregation plan is assumed to include the equalizing of opportunities both to enter the higher education mainstream and to exit from it. This is unlikely for students underserviced by the elementary and secondary public schools systems in the absence of retention strategies, including closely monitored developmental education programs.

The opening up of state system components to secondary school graduates regardless of curricula followed and achievement levels can be the cause of raising a burning educational issue--that is, whether flagship and other senior institutions should have as a part of their mission the education of students underserviced by the public school system. Major research institutions have demonstrated conclusively that students with suitable potential and motivation can be turned into competitive college graduates over a 5-year or so period. There is, to be certain, some additional expense involved, but the question is more socio-political and fiscal than educational in nature. Quality, if measured in terms of output rather than in terms of admission policy, can be guaranteed and is less an issue than is sometimes pretended.

The presumption here is that, as in Louisiana and to a lesser extent as in Mississippi, the higher education system will be opened up to underprepared students at every level and that closely monitored developmental education programs will be implemented to safeguard quality. The State University of New York which, as the City University of New York and the majority of the private institutions, is responsive to the State's total citizenry, publishes a retention newsletter through its Office of Educational Services. This has a spin-off into institutional studies offices at the individual institutions. Retention conferences are held yearly and an Advisory Committee on Retention Programs has been created by the system's Vice Chancellor for Educational Services.

Presentations on Systemwide student retention and tracking programs included here were made by representatives of state agencies and institutions of higher education. The two-day Seminar ended with a general discussion of system networking and the identification of issues essential to the implementation of productive desegregation plans.

(The interpretation and conclusions contained in the publication represent the views of the grantee and authors and not necessarily those of the Ford and Mott Foundations, their trustees or officers).

Systemwide Student Tracking

Delores Auzenne
State University System of Florida

Nationwide, student tracking and retention programs have become big business in higher education. In Florida, with estimated costs exceeding $100,000 annually and the investment of professional staff time, these activities represent a significant commitment on the part of our State to ensure the achievement of the educational goals of students matriculating in our institutions. Early on most of our efforts were directed toward simply increasing the racial diversity in our institutions, while giving minimal attention to output in terms of graduation rates. While we recognized the need for academic support programs, there was no empirical base upon which to design and implement these programs. Thus, in the past few years with increasing inflation and limited enrollment growth, we have become very concerned about the holding power of our nine public universities* and, in particular, our capability to make good on commitments that we made to the Office of Civil Rights (of the U. S. Department of Education) relative to increasing black and/or other minority students' participation in our higher education system. We in Florida needed to understand better why the increased recruitment activities at the institutional level did not result in any significant changes in the racial profile of the system.

In our 1978 Revised Plan for Equalizing Educational Opportunity in Public Higher Education in Florida, which was approved by the Office of Civil Rights (OCR), Florida made the following commitment:

> For those students seeking degrees or certificates Florida will examine the proportion of black and white

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*Florida's public universities are the University of Florida, Florida State University, Florida A & M University, University of South Florida, Florida Atlantic University, University of West Florida, University of Central Florida, Florida International University and the University of North Florida.

> students completing and graduating from public community colleges and universities. If any disparity exists, Florida will take reasonable steps required to reduce the disparity.

The commitment was well thought out although at the time of its writing we had no idea what the disparity was. In order to determine the extent of the disparity and measure progress toward the achievement of this goal, the State University System of Florida developed a systemwide study of student progression and retention. The study utilized a modified OCR B-5 format which was designed to follow individual students in a multi-year longitudinal study. The OCR B-5 survey instrument ("Progression of Students in Higher Education Programs") was altered to address problems that are peculiar to a systematic study of attrition. For example, the OCR B-5 Form was prepared by each of the universities with no consideration for the fact that several thousand students may transfer from one institution to another within the System during the same year. This phenomenon obviously tends to inflate the dropout rate of each university since it is not apparent to the institution that the student intends to remain in the System. A second problem with the OCR B-5 survey instrument is that it mixes degree-seeking students with non-degree seeking students which also tends to inflate the attrition rate because a high percentage of our unclassified students are non-degree seeking or older persons who are taking courses for personal enrichment, teacher recertification, and other reasons. These students will not leave the system as graduates.

Finally, the OCR B-5 counts students each October and compares those currently enrolled with students enrolled the previous October who have not yet graduated. This, in our estimation, does not recognize the fact that the State University System students do not necessarily attend school in a continuous stream or in sequential quarters, but may drop in or out of school in accordance with their economic conditions, their personal commitments or employment.

When we examined our data over the past four years it suggested that our students drop out or stop out for several terms at a time, even for years. During

any given term, a full 20 percent of the enrollment is returning from a term that was not immediately preceding. In order to solve these problems and to arrive at a systemwide student attrition rate, we designed a reporting data base which captures data on each student upon entry into the State University System, and then tracks that student throughout his or her college career in public colleges and universities in Florida.

Since the summer of 1976, every student enrolled in the State University System has been placed in our data base. Data recorded on each student includes both demographic and credits-earned information. As students attend in succeeding quarters or semesters, additional activity information is recorded and matched with social security numbers so that a permanent record of each student's progress through the State University System is maintained. The data base is currently tracking 296,000 students in four academic years from 1976-77 through 1979-80. By maintaining the systemwide data base, the problem of accounting for student transfers among individual institutions is eliminated. By using data recorded on individuals, students can be separated into classified and unclassified categories, thus alleviating the problems that were previously outlined regarding non-degree seekers.

In order to address the problem associated with the non-sequential attendance pattern that was encountered with the traditional OCR reporting form, we adopted the following procedure: an academic year (summer term through spring term) is the basis for the reporting year. Students who were not in attendance at any system institution for one full academic year and who did not graduate or terminate for valid reasons are considered to be dropouts. Students who were in attendance during any term of the most recent academic year anywhere in the system are considered to be enrolled and are counted as such. We feel that this procedure gives us a much better handle on the systemwide problem of student attrition.

The source of data for the attrition data base is a file produced by each institution for each academic term. This is an internal state file which we call the "Student Data Course File" and is used, in part, as the basis for funding within the State University System. Therefore, we assume that it is accurate. It includes both demographic and course information on each student in attendance at a given institution for a given term. The attrition data base is a segmented file which has a root segment that is captured when a new student enters the data base for the first time. The root segment contains basic demographic and classification information on each student. It will also contain a term segment for each term a student remains in the system. The term segment contains enrollment and credit information. As a student progresses through the State University System, additional term segments are added for that student for each term of attendance. The variety of data captured by this process produces an ability to compute and report attrition rates by type of student, academic year of entry, residency and classification. Each type of student is followed throughout his or her career.

During this current year we are taking the necessary steps to unravel the problems identified with the tracking of graduate and first-year professional students. We have found that difficulties arise when we attempt to track a student who is a bachelor's degree recipient of a Florida public university and who remains at the same institution for graduate study. By the end of the year, we hope to have this problem solved.

Findings of the systemwide attrition study have been headlined in newspapers throughout the state: "Black dropout rate nearly 50 percent in the universities." "Black students face problems from A to Z," etc. Most persons, including my colleagues, felt somewhat leery about releasing the findings of the attrition study, but it has proved to be to our advantage to do so as they provided the base for future policy decisions by the Board of Regents. We have been able to document the need for academic support and retention programs and now have the data base

to substantiate it. Most interesting are the attrition rates for first-professional students which have remained at or below six percent (after one year) during the entire four years of our study from (1976-1980). However, as we examined the other student types we found variations. For instance, for first-time-in-college undergraduate students, the attrition rates after one year have varied between 18.7 percent and 20.5 percent. For community college transfers, i.e., those students who transfer from our community colleges into the State University System, the rates after one year have varied from 19.7 percent to 21 percent. In Florida we have a unique structure in that four of our universities are upper level institutions which depend almost entirely upon community college transfers. Each year we are looking at over 30,000 students entering our system from the community colleges.

Other undergraduate transfers are those students who are transferring from other upper level universities or migrating between institutions within the system. For them, the attrition rates are much higher, varying from 26 percent to 29.5 percent after one year. However, after two years, the study confirms that the rates for each of the student types takes a substantial jump and my speculation is that this is due, in part, to the length of time it take students to flunk out of an institution and/or the internal progression policies of the universities. For instance, many of our institutions will allow a student to stay in school for another quarter in order to raise his or her grade point average. It is only after the second quarter that the student is academically dismissed.

When examining the findings of the study by race we find that the attrition rates for black students are higher than those for white students. Over the four year period (1976-1980) the attrition rates for white, first-time-in-college undergraduate students ranged from 18.5 percent to 19.5 percent after one year, while the rates for black students increased from 19.2 percent in 1976-77 to 26.7 percent in 1979-80. For those students who entered the university system in the base year

of our study, there was virtually no disparity between the attrition rates of black and white students after one year. However, as was expected, the cumulative attrition rates for both groups of students increased over the four years. Increases in the attrition of black students exceeded those for white students over the four year period. As a result, after four years we found that 47.5 percent of the black students had left the System as compared with 34.7 percent of white students. However, when these statistics are compared with national studies, it is noted that both groups were well below the national norm reported to be at approximately 60 percent attrition after four years.

During this academic year, my office will be undertaking another study to determine why students are leaving the system. We will attempt to identify the factors that are contributing to the disparity between the attrition rates of black and white students. We now know, for instance, that the difference between black and white attrition rates after one year has risen from 0.7 percent for students entering the System in 1976, to 7.2 percent for students who entered the System in 1979-80. It is very alarming that those students who entered the System in 1979-80 have almost reached after one year, the attrition rate it took the 1976 students two years to reach.

Retention programs are in place at all of the institutions in our System and are funded by both state and federal dollars. The upper division universities have implemented retention programs designed to assist community college transfers and our study confirms that these students are meeting with slightly more success than our first-time-in-college students. The attrition rates for black community college transfer students who entered the System during the four base years of the study, ranged after one year, from 21.2 percent to 24.7 percent while the rates for white students remained near twenty or twenty-one percent. After two years of study, 33.9 percent to 35.4 percent of black students were not retained while the attrition rates of white students remained relatively stable at just over 30 percent.

TABLE II-C

ATTRITION RATES OF FTIC
FLORIDA RESIDENT CLASSIFIED STUDENTS

	After One Year	After Two Years	After Three Years	After Four Years
1976-77 Entrants				
Black	19.2	32.7	39.5	47.5
White	18.5	27.6	31.7	34.7
*Total	18.7	28.4	32.9	36.9
1977-78 Entrants				
Black	23.2	32.5	39.6	
White	18.6	26.7	31.6	
Total	19.5	27.7	32.8	
1978-79 Entrants				
Black	26.0	39.6		
White	19.1	27.8		
Total	20.4	29.7		
1979-80 Entrants				
Black	26.7			
White	19.5			
Total	20.5			

*Total includes all racial categories and students who did not report race.

SOURCE: 1981 Study of Student Attrition within the State University System of Florida.

8/81

TABLE II-P

ATTRITION RATES OF COMMUNITY COLLEGE TRANSFERS,
FLORIDA RESIDENT CLASSIFIED STUDENTS

	After One Year	After Two Years	*After Three Years	*After Four Years
1976-77 Entrants				
Black	21.2	33.9	42.2	46.2
White	19.5	30.1	34.5	36.6
**Total	19.7	30.5	35.4	37.8
1977-78 Entrants				
Black	22.1	34.3	44.8	
White	21.3	30.7	35.5	
Total	21.2	31.0	36.4	
1978-79 Entrants				
Black	21.9	35.4		
White	21.0	30.7		
Total	21.0	31.2		
1979-80 Entrants				
Black	24.7			
White	20.0			
Total	20.1			

*Primarily reflects continuing part-time population.
**Total includes all racial categories and students who did not report race.
SOURCE: 1981 Study of Student Attrition within the State University System of Florida.

8/81

As a result of our study, we now have a data base to substantiate the extent of the attrition problem in the System and only now are we in a position to determine what policy decisions are needed to address the problem.

While the attrition rates have increased in general, we also know that of those students who remain, a substantial number are completing their academic programs in a timely fashion. It has been determined that overall there is no significant difference between the progression rates of black and white students, even though it normally takes black students about one to two quarters longer to complete the undergraduate degree requirements while at the graduate level it takes white students two to three quarters longer to complete the graduate degree. It very well may be that the difference in the persistence rates at the graduate level does not represent an academic problem, but rather an indication that black students are operating on a more time-compressed schedule. Many of the black graduate and professional students are full time and part-time employees returning to graduate school and thus have a more pressing need to return to their places of employment. While academic standards, and social and economic factors have had an impact on retention in the System, those students who remain in the System are realizing a high rate of timely degree completion.

Thus, the data base developed in support of the State University System's commitment to assess attrition rates by race provides us with a significant basis for determining the direction and evaluating the programmatic implementation of our academic support efforts. Implicit in Florida's commitment to achieve equality of opportunity in higher education is the objective to assure that all students are "provided effective personal and academic support to ensure achievement of educational goals." (Revised Plan: page 76). Academic support thus constitutes a major element of the comprehensive plan for equalizing educational opportunities. In support of this objective, we hope to refine further the capability of the data base to provide additional information for use in improving the

implementation of this component of the Plan; and more important, to be more responsive in addressing the academic needs of the students in our System.

Statewide Student Tracking

Larry Hayes
Oklahoma State Regents for Higher Education

I came to this seminar to learn what other people were doing because while we have what we consider a very fine data system, we have not done very much with it. We have hardly started with the kind of studies that we would like to do relative to retention. Another reason for coming was to share information about our unit data system which may be helpful to state agencies with the kind of coordinating responsibility that would permit the gathering of unit data.

We had a seminar about a month ago at the Kerr Conference Center in Oklahoma for our Regents. Each staff member was given an opportunity to present information about a particular area of his responsibility that might be of interest and of value to the Board in planning for the future. I presented two notions: one was to acquaint our Board with our unit data system, and the second was to suggest to them that we have not developed the system as far as we should. I told them that there were many enhancements and changes that should be made to the existing system but even more than that, we must develop a unified reporting system.

All of you in state agencies recognize that even within our own agency we don't coordinate things as well as we should. We have a number of reports that come directly from the institution in aggregate form rather than coming through the unit data system. There is no reason for it other than that's the way it has always been done plus the mistaken idea that last year's data is out of date. I presented the notion that we should, if at all possible, pull all of our reports from the unit data system which provides last semester and last year's data rather than current year data. It's kind of hard to educate people at the national level and the state level to the need for accurate and complete data rather than current data. They seem to think that if you only have last semester's data you can't do any long-

range planning. I think that's absurd and I don't mind saying so. Our legislators ask for information that will allow them to make better laws. They don't need current semester data, they need good rigorous data that has been thoroughly edited and analyzed, and where the degree of error is known. I can tell you from our studies since 1977-78 with unit data that for the basic variables used for existing studies, we have less than one half of one percent error when we look from semester to semester, when we look from year to year, and when we look from institution to institution. So we have a great deal of confidence in the data that we have and confidence is essential in our business. If you don't have confidence in your data, there is no use collecting data.

When I went to the State Regents' office fourteen years ago one of the first things I did was to examine the several reports that came out of our agency and made data comparisons to try to determine whether we were getting the same data from an institution each time that we asked for it, and we were not. There were no two reports that came out with the same information even though quite often we asked for exactly the same information from the same time period. So, we felt there had to be a better way of getting at information about our some 41 institutions, both public and private.

I began to talk about a unit data system back in 1969. It took me until 1974 to convince the chancellor that we ought to move in that direction. The impetus for the unit data system was the need for student flow information even though its use has been primarily for civil rights compliance. An advisory council was established comprised of an individual from each institution appointed by its president. I am telling you this because I think that institutional representation is extremely important in establishing any kind of comprehensive data system. The council met twice a year for the first three years and we meet once a year now. We meet in conference through our State Regents' statewide closed-circuit

television network. Council members don't have to leave their institutions to sit in on our meetings. Our folks don't like to travel so they vote each year to hold the meeting via talkback television.

The advisory council must approve everything that is done relative to the unit data system and we have a standing rule that we never change anything less than one year in advance so that institutions are never caught in a position where they have to hurry up and do something without adequate preparation. They have a year's warning always and usually about a year and a half. Because a council of 41 people is rather awkward to work with, we have a six member steering committee made up of two people from three institutional segments in the state. So we basically operate with a steering committee of six people in determining the format for our unit data system.

We didn't start from scratch. The first thing I did after I got the go ahead for a unit data system was to contact Brenda Allbright in Tennessee and we got some excellent suggestions from her. So I feel pretty good about having an opportunity to share our experience with other people now.

I guess the first thing that we had to wrestle with was the development of a set of objectives. It was a good time to get started. I had just attended an AIR (Association for Institutional Research) Conference in Chicago and the president of that organization at that time spoke of the growing reporting burden of institutions. Of course, we didn't know what reporting burden was back in those days. We didn't have civil rights compliance and we didn't have VEDS. Are all of you familiar with VEDS (Vocational Education Data System)? If you haven't gotten acquainted with VEDS, you haven't lived. Even civil rights compliance was rather simple compared to VEDS.

The first objective identified was <u>to reduce the reporting burden of institutions</u> by generating as many reports as possible at the state level. Now, remember

we had to get the cooperation of all of our institutions, we couldn't impose anything on them. Oklahoma probably has the strongest coordinating agency in the country. When experts in the field of higher education write about coordination, they write basically about Oklahoma's structure. It is this structure that allows us to get things done that you may not be able to get done in your state. We control all the money for instance. The legislature appropriates funds to us in lump sum and we, in turn, make allocations to the institutions. So institutions are very careful about their relationship with our coordinating board. On the other hand, our coordinating board is very careful with our relationship with institutions. If you've worked in any large organization, you know that just because you've got the power, it doesn't mean that you're going to get anything done. To get things done you've got to get the cooperation of the people and so it was very important for us to introduce objectives that would benefit the institution. We decided that to reduce the burden of the institutions would be the number one objective of the unit data system. When we consider that the State Regents did the system's work, the centralized programming that generated the 25 or so reports that are required for civil rights compliance and the VEDS reports each year, it is clear that our system has already paid for itself, let alone all of the other ways we have reduced the institutional reporting burden.

The second objective was <u>to increase the comparability and accuracy of data</u>. As I stated earlier, we had many reports with differing figures and as long as we were gathering aggregate data there was no way check our numbers. When you gather unit data you can verify your data. We can determine if fees have been collected for each student, the amount of these fees, and whether or not that individual actually attended classes. We have been able to accomplish this second objective to the extent that we have less than one half of one percent error for basic data elements from year to year and from institution to institution. While I

am sure we can improve on that record, we are not dissatified with the accuracy of our data at present.

The third objective was to enhance research and planning. You can imagine the amount of research that can be done if you have a unit data base not only on students but on professional staff, and on classes. When you start thinking of what you can do with these three data bases which are tied together with social security or class identification numbers you recognize that we can conduct hundreds of studies, from facilities utilization, to program budgeting, to virtually any request a legislator can make. We can handle almost every report that needs to come out of our office and if we can't handle it, we should revise our unit data system so that we can handle all reports--those required from the federal level, those required for our own planning, and those required by our legislature. This brings me to the point that if we don't try to educate the people at the national level and at the state level as to what data they really want, then we are not doing our job. We have to convince them that what they are asking for many times is not what they really want. We can help ourselves and we can help them considerably if we don't just roll over and say well they're big dogs and therefore we are going to give them what they want or what they asked for. We need to educate these people.

The fourth objective was to reduce the cost of reporting. Now, you may say that's going to be quite a task, to reduce the cost of reporting. But I can assure you that the cost for 41 institutions, each one developing its own system, writing its own programs and generating its own reports would be far more costly than for the State Regents to do it one time. The unit data system also enables us to generate many reports with one system, without getting the pencil and paper out and going back to the institution every time a question comes up. I feel that the cost of our unit data system, which was in the neighborhood of $500,000 for the State Regents Office, was the best investment our agency has made in recent years. We have saved the institutions a tremendous amount of money and whether

we spend it from our budget or whether they spend from their's, it's still state money.

The fifth objective was to provide institutions with management data. We have a lot of fairly small junior colleges--very few under a thousand enrolled, but several which have about 1,000 students. At the time we started our system, we had only six or seven institutions with the internal capability to generate management information to help operate their institutions. So one of our main objectives was to provide institutions with the management information that would allow them to make legitimate decisions. So we provide management information that is quite helpful to the institutions. When we started the program we had a few grumbles; if you would suggest now that we get rid of this system, we would have a minor war on our hands because we do provide a lot of useful management data and information.

The first major problem we had to face after the system was operational was to determine just which students were to be reported. Let me just give you an example of the problem. At one junior college, the only students reported on the unit data system were those students who were enrolled for resident credit, were attending classes, and had paid their fees. While at the same time, one of our major universities was reporting all students who were enrolled for resident credit. Now recognize the difference. Students at the junior college were not only enrolled for resident credit but they were attending classes and they had paid their fees, while at the universities a student was reported even though he attended no classes and paid no fees. Our budgets are built on these students and you can't get away from the number of students driving your budgeting process to some degree. This was probably the biggest fight we had: to get institutions which had been exaggerating their enrollments for quite some time to report only those students who had registered, were attending classes and had paid their fees, i.e., bonafide students.

Now let me talk to you a little about our unit data manual. Our manual is a working document, not a publication and so it may not be quite as slick as some people would expect for a system that has been underway since 1977-78. But it does give some indication of the various reports that are generated from the unit data system such as summer, fall and spring enrollment reports, degrees and other formal awards, program budgeting, instructional load data, faculty and salary data, course program data, faculty salary studies, and vocational technical reports.

Civil rights compliance, VEDS and HEGIS reports are also generated from the unit data system. OCR (Office of Civil Rights) has pointed to Oklahoma as being a state that has really worked at trying to bring about change and improvement. I think that is true. But, we have caused them to rethink a lot of things that they are doing. OCR was concerned about program duplication. Using our unit data system we were able to show the Office of Civil Rights that that wasn't a legitimate problem in Oklahoma. We also have talked with the Office of Civil Rights and the HEGIS people at the National Center for Education Statistics to let them know that our data is for an entire term rather than a census data snapshot. They have accepted this difference in data generation. We also have let them know that we can't meet their deadlines for submiting data. Of course, we do tell them that when we send it to them it's going to be on tape and that it's going to be thoroughly checked and edited and they can depend on what we send them.

Very quickly let me indicate the kinds of data that we have on students. We have birth date, racial and ethnic characteristics, gender, disadvantaged, economic, and physical statuses. We have the last college attended (FICE CODE), high school of graduation (ACT CODE), state of original residence, national citizenship, county code, marital status, ACT score, type of admission, type of readmission, admission action, first time entering student, class level, withdrawal status, social security number, earned semester credit hours, grade point average, immediate

educational goal, instructional program area, degrees earned, courses completed along with grades earned.

Our class file contains the field of study (HEGIS CODE), the course number, section number, course level, assigned credit hours, student total clock hours, number of weeks, special class type, the faculty members' social security number, faculty course assignments, multiple instructors, multiple sections, faculty members' total clock hours, building code, room number, multiple rooms, room total clock hours, learning centers, cost center, and accessibility for the handicapped.

Professional staff data elements are as follows: social security number, gender, racial/ethnic characteristics, month and year of birth, employment duration, total salary for full-time faculty, faculty salary source (chargeable to institutional instruction, organized research, sponsored research, sponsored programs, extensions, public service, etc.), tenure status of the staff member, academic rank, shift of status, highest degree earned, source of highest degree earned, percent of salary from the E & G budget and a number of things that had been added specifically for civil rights compliance. Also captured in the data base are years of experience in academic position, years of experience in this institution, administrative title, professional staff member full time equivalency, manpower resource category, promotions data, contract salary only, contract FTE fall only, length of basic contract period, new hires, terminations, donated services, new hires full- or part-time, month and year of last promotion, and several other data elements as required. So you can see that when we can tie those three major data bases together we have a wealth of material for research and we just really haven't started yet in doing the job that we should.

In Oklahoma we do have three projects that relate to the subject of this seminar: a student progression report, a student flow project and a series of transfer matrices. I won't try to describe each of these projects in detail, but will

provide a broad statement about each of them along with supporting material for the student progression report and the transfer matrices.

Each year we produce state-wide student transfer matrices for several purposes. Copies are included in our OCR report, copies are sent to our institutions, and copies are used in the State Regents office for planning. Transfer matrices are for the following groups: all students, students with degrees, students without degrees, students by race, students by sex and students by level. A sample copy of a transfer matrix is attached.

In the fall of 1980, the State Regents' office produced a pilot student progression study based on the same data and time period as the OCR 5000 B-5 report. The study was submitted to the Office for Civil Rights and the individual institutions for their review and approval. After making minor corrections in programming, the State Regents' Student Progression Report for the next data cycle was produced and officially submitted to OCR as SPR 6000 B-5, a replacement for the previously used OCR format.

The Student Progression Report is a comprehensive effort to document and understand the major elements of student movement, retention, and attrition. The report not only covers the same elements as the OCR format but examines stopouts, transfers, delayed transfers, and students not seeking a degree. The expansion of the analysis section of the report and the inclusion of line-by-line black/white ratios allow for a more useful understanding. Additionally, the SPR 6000 B-5 provides retention data for all schools in the state system, not just the traditionally white four-year institutions, and for all races, not just black and white.

Sample results of our student progression report are attached along with a line-by-line description of the student progression report. A student flow system is our third project. It will replace the student progression report in the future.

Beginning in 1978-79, we follow all first-time entering freshmen for as long as they are in Oklahoma higher education. To begin with, we are looking at their attendance records, attendance and stop-out patterns, by such variables as race, sex, and age. Movement of students from one type to institution to another by such variables as ACT score, grades, and degrees conferred are being studied. Our unit data system will allow us to learn a great deal about our students that was heretofore unknown.

This concludes my remarks and I want to thank you for inviting me to share with you our activity relative to statewide student tracking.

OKLAHOMA STATE REGENTS FOR HIGHER EDUCATION
STUDENT TRANSFER ACTIVITY MATRIX : STATE-WIDE FLOW

FALL 1980

TOTAL WITH AND WITHOUT DEGREES

FROM \ TO --->	OU	OSU	CSU	ECOSU	NEOSU	NWOSU	SEOSU	SWOSU	CU	LU	USAO	OPSU	CSC	EOSC	HSC	NEOAMC	NOC	CJC	TJC	OSU-TI	OSU-TT	OUHSC	OCOMS	WOSC	ERJC	CAJC	SAYRE	SJC	ORJC	SCJC	TOTAL
OU		108	110		32	3	1	23	35	3	29		5	6	1		8	11	203	74	8	4			11		1	2	247	214	1139
OSU	194		181	40	56	18		29	38	9	12	13	4	3		22	75	19	485	69	47	1		10	16		8		102	93	1544
CSU	156	126		33	24	6	7	21	16	6	14	2	2			2	19	8	53	116	9				28		1	2	287	182	1120
ECOSU	55	50	27		7		21	6	5		8	2		7	6		2		26	5	6			5	2	3	1	8	40	19	311
NEOSU	39	41	15	15			2	10	2	6	4	1	35	1		7	4	26	161	10	19			1		10	1		10	7	427
NWOSU	13	36	20	4	1			8	1	1	1	6					10	1	8	4	2				1				6	9	132
SEOSU	24	21	14	45	21			6	5		3	3	2	5	8			1	6	3	3				1	11	1	3	13	10	209
SWOSU	44	79	64	8	6	14	6		22	1	21	7	3	1			4		18	11	6			22	9	2	21		16	30	413
CU	42	50	19	12	4	2	3	18			10		1				1	3	10	2	6			7					19	17	226
LU	7	11	19		5												2		24	4	1	1		1					20	12	108
USAO	17	8	3	6	3			11	8								1		7	7	1			1	1	1			18	13	106
OPSU	4	18	3	3	2	5		5	2	1							1		3					1	1		1	1	1	1	53
CSC	8	28	12	10	150	1	6	4	1	1	1	1		5		2	1	12	19		16								8	3	286
EOSC	21	55	16	42	13	1	45	5	1	1			4				2	4	16	1	6	1		1	1	12		1	12	8	269
HSC	15	39	8	56	2		44	3	2		1	2		1			1		4	4	1			1		1			8	6	199
NEOAMC	43	181	23	4	48	2	4	8	2	2		1	2	1			5	16	93	1	9	1					1		7	2	456
NOC	21	116	46		6	22	3	13	2			3	1						21	2	5	2			2				8	7	280
CJC	20	63	19	4	80	1	5	4	7	3	1	4				5	2		125	2	5	1		1					4	1	357
TJC	59	198	25	3	56	1	2	4	2	42		2	2			5	3	37		3	28				1	1			6	7	487
OSU-TI	30	42	94	1	5			3	4	1	1		2	1					6					1	4			1	80	54	330
OSU-TT	1	1	2		1				1	2							3		6									1			18
OUHSC	4	1	2	1					1			2							3	2				1	1				8	3	29
OCOMS																															
WOSC	22	40	9	6	1		2	60	40	3			1				1		5	1	6	2					1		11	2	213
ERJC	11	15	26	1		1		17	1	1	5		1				1	1	3	7	2						1		19	18	131
CAJC	8	13	9	13	30		24			1	1		6	7	1					3	8								11	3	135
SAYRE		6	1				2	29				1					1		1		1			1					1		44

21

27

23

OKLAHOMA STATE REGENTS FOR HIGHER EDUCATION
STUDENT TRANSFER ACTIVITY MATRIX : STATE-WIDE FLOW

TOTAL WITH AND WITHOUT DEGREES

FROM \ TO --->	OU	OSU	OSU	ECOSU	NEOSU	NWOSU	SEOSU	SWOSU	CU	LU	USAO	OPSU	CSC	EOSC	MSC	NEOAMC	NOC	CJC	TJC	OSU/TI	OSU/TT	OUHSC	OCOMS	WOSC	ERJC	CAJC	SAYRE	SJC	ORJC	SOCJC	TOTAL
SJC	34	16	23	58	5	1	2	5	1			1							5	2	7				1				47	9	217
ORJC	226	85	266	15	3	5	4	19	5	7	1	1	1	1			1	1	17	56	3	7			5	2		2		143	886
SOCJC	86	19	100	7	4	1	2	16	6	1	2						3		7	49	4	1		2	4				210		524
TU	40	48	7	2	15		1	1		11							4	24	413	1						1			4	2	574
BETHANY	13	4	18		2		1	4				1						1	4	7	1	1		1	2		1		3	28	92
OCU	46	12	49		2		1		3		2	1				1		1	9	18	1				5	2			59	63	275
PU	11	18	7	1		6		4		2	1	1					8		8		2			1	1				4	9	81
OBU	13	14	16	10	6	2		4	3		3	1		1			3	2	17	4	4				2	1		2	20	15	143
OCC	13	12	27	1	1		1	5	5			3					1		16	6		1		3	3	2			6	8	114
ORU	5	10	1		3		2	2		1									70		1					1				4	100
ACC																			3												3
MCC			5																1	1					1				3	1	12
OMB		30	34					8					8						76					10					79		245
FR																															
BACONE	9	4	3	3	35		4	2					5			1		2	9	1	1							1	2		82
BWC		9	1		2	3						2	1			2	1		6						1				1		29
HBC	7		4		1			1											4										3	4	24
SWC	35	15	72	2		1	1	1	2	6	3							2	5	9					5	1			32	60	252
SGU	20	21	4	1						1	1							1	3	3									8	3	66
SPARTAN																															
UNKNOWN	248		22	5	6	8	15		279	58	53	3		2	5	52	37	2		104	386			29	38	1		372		1	1726
OUT-ST	785	492	349	168	173	70	220	133	353	30	48	136	25	19	1	34	72	58	971	96	397		1	138	21	45	15	6	506	328	5690

PROGRESSION OF STUDENTS IN PUBLIC HIGHER EDUCATION PROGRAMS- 1979 - 1980 PART I UNDERGRADUATE LEVEL

AGGREGATE OF PUBLIC INSTITUTIONS - SPR# 600095

INST: PUB FICE:

1- 1ST YEAR LEVEL- (NORMALLY FRESHMAN STATUS) ALL UNDERGRADUATE CLASS LEVELS -	BLACK NON-HISP. (MALE	FEM.)	ALASKAN OR AMER. INDIAN (MALE	FEM.)	ASIAN OR PACIFIC ISLANDER (MALE	FEM.)	HISPANIC (MALE	FEM.)	WHITE NON-HISPANIC (MALE	FEM.)	TOTAL CLASS (MALE	FEM.)	TOTAL	BLACK-WHITE RATIO
2- NUMBER OF STUDENTS IN BASE YEAR IN THE ABOVE CATEGORY-	2073	2277	1014	1312	283	221	297	259	21764	24475	25431	28544	53975	1: 10.0
3- NUMBER WHO ADVANCED TO THE NEXT CLASS LEVEL OF STUDY- -	418	380	226	265	65	44	51	46	5581	5335	6341	6070	12411	1: 13.0
4- NUMBER WHO ADVANCED BEYOND THE NEXT CLASS LEVEL OF STUDY- -	25	34	9	12	9	6	7	5	290	321	340	378	718	1: 10.0
5- NUMBER WHO REMAINED AT THE SAME CLASS LEVEL OF STUDY- -	360	453	156	211	60	44	58	50	4326	4934	4960	5692	10652	1: 11.0
6- NUMBER WHO COMPLETED A PROGRAM OR WHO GRADUATED -	16	24	10	10	4	2	2	3	227	160	259	199	458	1: 9.0
7- NUMBER NOT ENROLLED IN FOLLOWING YEAR WHO DID NOT 'COMPLETE' OR GRADUATE-	1254	1386	613	814	145	125	179	155	11340	13725	13531	16205	29736	1: 9.0
8- - - - INSTITUTIONAL 'STOPOUT FACTOR'- - - - -	133	178	58	85	15	16	33	26	1106	1682	1345	1987	3332	1: 9.0
9- NUMBER COUNTED AS TRADITIONAL INSTITUTIONAL ATTRITION-	1121	1208	555	729	130	109	146	129	10234	12043	12186	14218	26404	1: 9.0
10- PERCENTAGE OF TRADITIONAL INSTITUTIONAL ATTRITION-	54%	53%	55%	56%	46%	49%	49%	50%	47%	49%	48%	50%	49%	
11- NUMBER FROM LINE 9 WHOSE IMMEDIATE GOAL WAS 'NO DEGREE SOUGHT'-	122	155	69	100	18	25	21	37	1932	3115	2162	3432	5594	1: 18.0
12- NUMBER COUNTED AS NON-TRADITIONAL INSTITUTIONAL ATTRITION-	999	1053	486	629	112	84	125	92	8302	8928	10024	10786	20810	1: 8.0
13- PERCENTAGE OF NON-TRADITIONAL INSTITUTIONAL ATTRITION-	48%	46%	48%	48%	40%	38%	42%	36%	38%	36%	39%	38%	39%	
14- NUMBER FROM LINE 9 WHO TRANSFERRED IMMEDIATELY TO ANOTHER STATE SYSTEM INSTITUTION-	136	172	69	76	18	10	13	8	1843	1809	2079	2075	4154	1: 11.0
15- - DELAYED TRANSFER FACTOR- - - - - - - -	65	109	41	66	12	7	14	5	900	1124	1032	1311	2343	1: 11.0
16- NUMBER COUNTED AS TRADITIONAL STATE SYSTEM ATTRITION FROM INSTITUTION-	920	927	445	587	100	92	119	116	7491	9110	9075	10032	19907	1: 9.0
17- PERCENTAGE OF TRADITIONAL STATE SYSTEM ATTRITION FROM INSTITUTION-	44%	41%	44%	45%	35%	42%	40%	45%	34%	37%	36%	38%	37%	
18- NUMBER COUNTED AS NON-TRADITIONAL STATE SYSTEM ATTRITION FROM INSTITUTION-	779	772	376	487	82	67	90	79	5559	5995	6913	7400	14313	1: 7.0
19- PERCENTAGE OF NON-TRADITIONAL STATE SYSTEM ATTRITION FROM INSTITUTION-	38%	39%	37%	37%	29%	30%	33%	31%	26%	24%	27%	26%	27%	

Progression of Students In Public Higher Education Programs
Interpretation of Data Lines for SPR 6000B5

Part I

Line 1 - "Progression from base year study to following year."

- This line indicates the classification of the student group under investigation from the base year (1979-80) to the next (fall 1980) and their subsequent status.

Line 2 - "Number of students in base year in the above category."

- This line defines the total number of unduplicated students in the base year. (1979-80)

Line 3 - "Number who advanced to next class level of study."

- This line indicates the total number of base year students who advanced to the next class level of study from the base year.

Line 4 - "Number who advanced beyond the next class level of study."

- This line indicates the number of students who advanced beyond the next class level from the base year.

Line 5 - "Number who remained at the same class level of study."

- This line indicates the number of base year students who did not complete enough credit hours to advance to the next classification in the following year.

Line 6 - "Number who completed a program or graduated."

- This line indicates the total number of base year students who either completed their individual program or graduated between the base year and the following year.

Line 7 - "Number not enrolled in the following year who did not complete or graduate."

Note: All terms not defined herein are defined in the Unitized Data Report System Manual; Student - Professional Staff - Class Data Report, Data Request Form, 1979-80.

- This line indicates the total number of base year students who did not complete a program and were not enrolled at any level the following year.

Line 8 - "Institutional stopout factor."

- This line refers to a number of students that have been labeled as probable "stopouts." The term "stopout" is defined, for the purpose of this report, as the student who interrupts his/her program with the intent of returning to continue their education at a later date. Eventually this factor will be determined by taking the average number of "stopouts" returning to school in the fall of a five-year period. For the SPR 6000B5, however, the factor represents only fall 1980 data.

Line 9 - "Number counted as traditional institutional attrition."

- This line indicates the total number of base year students counted as traditional institutional attrition. More specifically, the number of students listed on line 7 (not enrolled in following year) minus the number on line 8 (institutional stopout).

Line 10 - "Percentage of traditional institutional attrition."

- This line indicates the percentage generally referred to as institutional attrition; it is derived by dividing the number of students counted as traditional institutional attrition by the total number of students in the base year.

Line 11 - "Number from Line 9 whose immediate goal was 'no degree sought.'"

- This line indicates the total number of base year students who did not complete a program, graduate, or enroll the following year. These students, however, indicated that they were not seeking a degree.

Line 12 - "Number counted as non-traditional institutional attrition"

- This line indicates the total number of base year students traditionally lost to attrition (line 9) minus the total number of students not returning who were not seeking a degree (line 11). This gives us a non-traditional computation of attrition for students, in that we are discounting students who probably did not intend to remain at the institution due to a short term goal.

Line 13 - "Percentage of non-traditional institutional attrition."

- This line indicates the percentage of non-traditional institutional attrition (line 12 divided by line 2).

Line 14 - "Number from 9 above who transferred immediately to another State System institution."

- This line indicates the number of base year students not enrolled the following year at this institution but who did enroll at another State System institution the following year. They would be "immediate transfers."

Line 15 - "Delayed transfer factor."

- This line indicates the number of students enrolled in other State System institutions who were admitted in the following year as transfer students from this institution, but were not enrolled in the base year at this institution. That is, this line refers to students that have been labeled as "delayed transfers." The term, "delayed transfer," for the purposes of this report, refers to a student who interrupts his/her program with the intent of returning to complete their education at a later date and subsequently transfers to another institution to do so. This factor will be determined by taking the average number of "delayed transfers" going to other State System institutions in the "following year" for a five year period.

For the SPR 6000B5 the average is composed of one year's data, however. The SPR 7000B5 will have two year's data, etc....

Line 16 - "Number counted as traditional State System attrition from institution."

- This line indicates the number of students counted as traditional State System attrition. More specifically, the number of students listed on line 9 minus the number of students on line 14 (immediate transfers) and line 15 (potential delayed transfers). Intra-system transfers, whether immediate or delayed are not considered to be attrition to the State System.

Line 17 - "Percentage of traditional State System attrition from institution."

- This line indicates the percentage of State System attrition from a particular institution. It is derived by dividing the number of students counted as traditional State System attrition by the total number of students in the base year (line 16 divided by line 2).

Line 18 - "Number counted as non-traditional State System attrition from the institution."

- This line indicates the number of base year students lost to the State System as traditional attrition (line 16) minus the number of base year students who were counted as non-traditional attrition (line 11).

Line 19 - "Percentage of non-traditional State System attrition from institution."

- This line indicates the percentage of non-traditional State System attrition (line 18 divided by line 2).

Righthand Column "Black-White Ratio."

- This column gives an instant method of black to white comparison of data for the fourteen numerical lines of each class level. Where an item falls in comparison to the mean ratio of an institution or the

State System, allows observations to be made as to whether or not the black students are disproportionately represented in the data.

Part II

No data is generated for this section by Unit Data at the present time. Future reports may analyze graduate and/or professional enrollments.

Part III

Line 1 - "Students enrolled in base year."

- The number of unclassified students enrolled in the base year of the report.

Line 2 - "Number of students enrolled in base year who re-enrolled in following year."

The number of students counted as unclassified in the base year that enrolled the next fall.

Part IV

Line A - "Traditional institutional attrition."

This line sums line 9 for each class level of the report. This computation was made considering those students who were not seeking a degree as lost to the institution if they did not return.

Line B - "Traditional State System attrition."

- This line sums line 16 for each class level of the report. This line has the same considerations as line A above but does not compute intra-system transfer students as an attrition to the State System.

Line C - "Non-traditional institutional attrition."

- This line sums line 12 for each class level of the report. This computation was made considering those students not seeking a degree as

not lost to the institution if they did not return.

Line D - "Non-traditional State System attrition."

- This line is the sum of line 18 for each class level of the report. This line has the same considerations as line C above but does not compute intra-system transfer students as an attrition to the State System.

Calculation A "Institutional attrition."

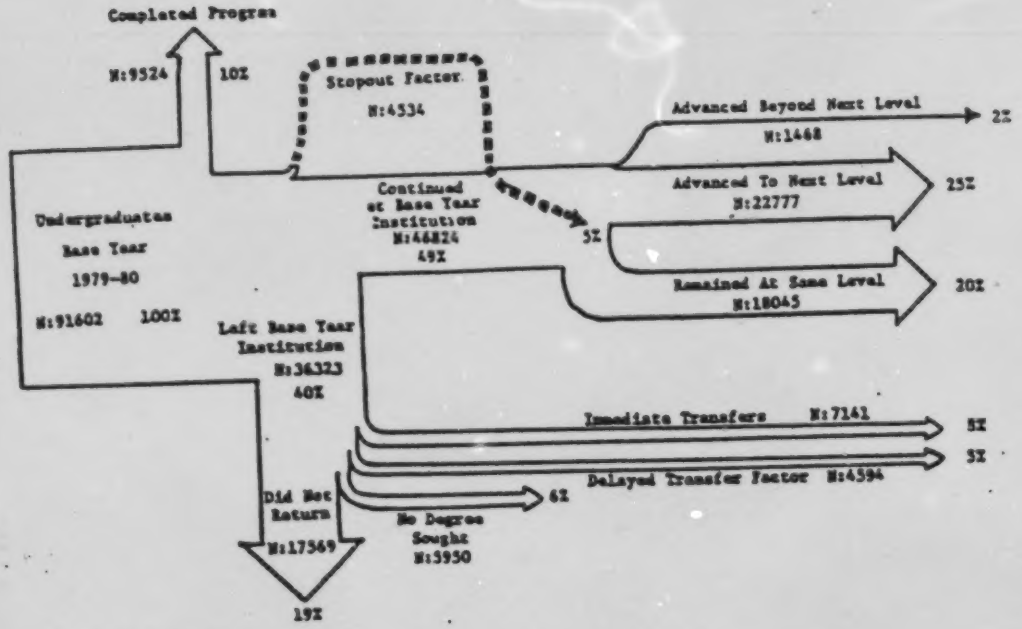
Following the method of calculation set down by the Office for Civil Rights for the OCR Thousand B5 series, this calculation is made by summing the base year lines by class level for black and for white and dividing that quantity into the sum of the non-traditional institutional attrition lines by class level for black and for white. The result is the percent not returning to that institution by race. In order to determine whether or not the percentage of black attrition is within the 20% latitude to white attrition allowed by OCR the black percentage is multiplied by 0.8. The appropriate line is marked "X" below. This calculation is valid for an individual institution only and should not be used to evaluate the State System or any sub-aggregate.

Calculation B "State System attrition."

These calculations follow the same procedure except that intra-system transfers are not considered to be attrition to the State System. This calculation best reflects the effect of an institution on system retention and is the calculation that should be considered when analyzing the State System as an entity or its sub-aggregates.

TABLE ELEVEN

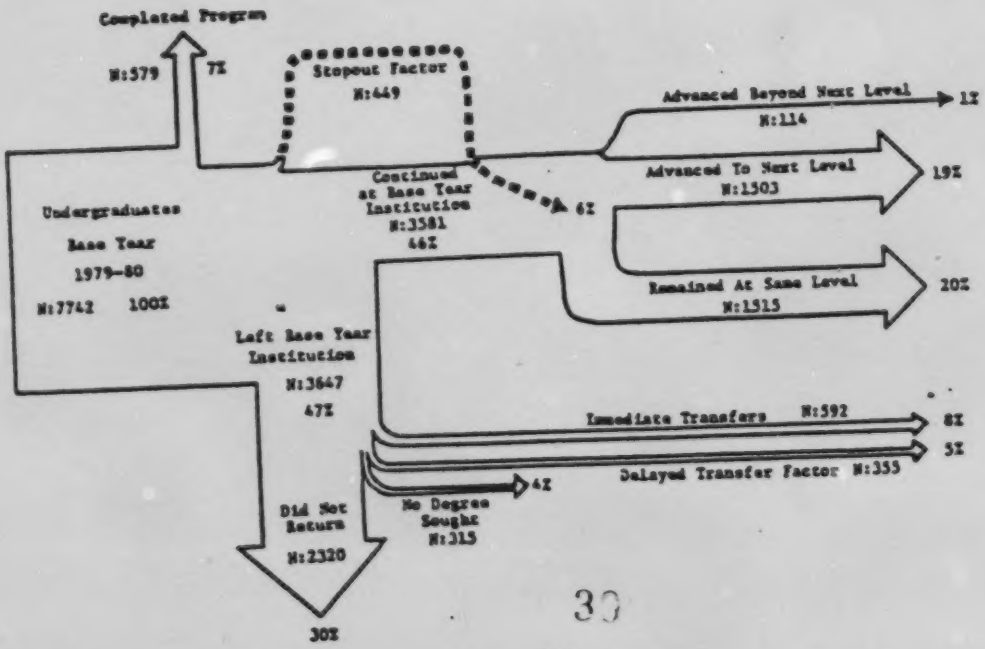
WHITE UNDERGRADUATE STUDENT PROGRESSION FROM 1979-80 TO FALL 1980



Source: SPR 6000 R5

TABLE TWELVE

BLACK UNDERGRADUATE STUDENT PROGRESSION FROM 1979-80 TO FALL 1980



Source: SPR 6000 R5

Improving Desegregation Planning and Higher Education in Tennessee: SIS, Retention and Progression

Michael Nettles
Tennessee Higher Education Commission

This presentation addresses three issues. The first is the student information system in Tennessee. The second is student retention and progression, a topic of current research I am directing at the Commission and sponsored by the Ford Foundation; and third, some comments about the kinds of data that will improve desegregation planning and higher education in Tennessee. These three issues are perhaps best understood in light of the thirteen year history of the higher education desegregation court case in Tennessee that preceded, and is different in substance from, the Adams Case. It will help in interpreting the data we have.

The desegregation court proceedings in Tennessee began in 1968 when a class action suit was filed in the U.S. Court for the Middle District of Tennessee. The original class of plaintiffs was comprised of black students and black faculty from Tennessee State University, black citizens in the state of Tennessee, including parents of prospective students at Tennessee State University as well as other state colleges and universities. The case was originally entitled Rita Saunders Gier vs. Ellington. At the time Rita Saunders Gier was a faculty member at Tennessee State University and Buford Ellington was the governor of Tennessee and the chairman of the two existing state higher education governing boards. Since 1968, two classes of plaintiff interveners have been added, but the defendants have remained the Tennessee Higher Education Commission together with the two governing boards in the State of Tennessee, the State Board of Regents and the University of Tennessee system.

This case has a long history; therefore, I will summarize only a few points of relevance to the purpose of this meeting. First of all a major part of the case was

concerned with the Nashville area where two institutions, one predominantly black, the other predominantly white, offered many of the same academic programs within miles of each other although each had a different mission. Because of this so-called "duplication", the court, in 1977, ordered that the two be merged. The merged institution, Tennessee State University, is now in its third year of operation. The other part of the Tennessee case is concerned with the desegregation of students, faculty, administrators and staff at all other public colleges and universities outside of Nashville. For this segment of the case the court ordered the three defendants to develop a long range plan for desegregation, and appointed a desegregation monitoring committee to oversee the progress of goals and achievements and to file a progress report with the court on an annual basis. Tennessee was not named as one of the Adams states in all probability because it preceded the Adams case, and was in the middle of litigation when the Adams suit began.

The basic goal of eliminating the dual system of higher education is something Tennessee shares with the Adams states. The status of our desegregation process is that we have made some progress especially with regard to statewide undergraduate enrollment, but there is much more that needs to be accomplished especially concerning undergraduate student progression, graduate and professional school enrollments, and hiring and retention of faculty and administration. With that background, let's move on to a description of the Tennessee Higher Education Commission's data system, better known as the Student Information System or the SIS.

In order to fulfill its statutory obligation as a coordinating board which does master planning, recommends funding appropriations, and reviews academic programs in colleges and universities in Tennessee, it is important for the Higher Education Commission to have as much information as possible about enrolled

students. The SIS data is submitted to the Commission by each public higher education institution in the state on the 14th day after the beginning of classes during each term of enrollment, and supplements are submitted four months later for purposes of updating and correcting the original submissions. While this SIS system did not evolve from the work we have been conducting for desegregation, it has definitely provided the major supply of data required. Furthermore, the desegregation progress has influenced the way in which the data is reported and maintained in the storage system. The information maintained on each student is utilized in establishing desegregation goals and measuring progress toward those goals.

In addition to SIS, the Commission has an academic inventory and a record of graduates from public colleges and universities which are utilized in monitoring desegregation. We keep information on students' race, sex, age, major field of study, level of enrollment, number credit hours accumulated, the institution codes, transfer data and information, and social security number. We also conduct a cost study on a bi-annual basis.

Now that you know the type of data we maintain, I will explain how we utilize the data. First, I will discuss our newly proposed methodology for establishing goals for desegregation. In the Adams criteria, goals for undergraduate enrollments are established on the basis of numbers and percentages of graduating high school seniors within each state and goals for graduate enrollment are based upon the numbers and percent of graduating seniors from state colleges and universities. By contrast, in Tennessee we have not utilized graduating seniors as a basis for establishing goals at either the undergraduate or graduate levels. Rather, we have established goals on the basis of the racial composition of the service area of each university. In Tennessee, desegregation goals refer to black and white citizens; in the case of predominantly white institutions, they refer to

black students or personnel, and in the case of predominantly black institutions they refer to white students and personnel. Because less than 1 percent of our state's population is other than black or white, we only use black and white categories. Goals are set on the basis of the racial composition of the population within each institution's service area.

A significant part of goal setting is to define the service area of each institution. While there are many ways to do this, we are proposing that service areas be defined as the counties inside the state from which the institution receives its students. For example, the University of Tennessee receives 45 percent of its total enrollment from Knox County, which is the county of its location; therefore, we are suggesting that 45 percent of the desegregation goal for that institution should be based on the racial composition of Knox County which is 10 percent black. Since The University of Tennessee receives its enrollment from all 95 counties in the state, then all 95 counties should figure into establishing the desegregation goal for that institution weighted by the number of total students that it receives from each county.

We do this for two reasons. First, the goals should recognize the populations beyond the traditional ages as represented by graduating seniors. During the past decade, there has been an increase in the number of adult students returning to college or attending for the first time, who should be targeted to some extent in our desegregation efforts. Second, the utilization of state racial proportions in population areas is a better measure of equity than the percentage of graduating seniors because elementary and secondary schools have yet to resolve their own desegregation problems. While high school graduates do represent an available pool of perspective students, they should not represent an ultimate goal <u>in all cases</u>. In Tennessee, graduate school desegregation goals are calculated the same as undergraduate goals for non-unique degree programs -- if there is more than one

such program in the state. For unique graduate programs and professional schools, (i.e., law, medicine, veterinary medicine) the desegregation goal is the same as the racial proportion of the state population. That is because they are the only ones of their kind so they should have a statewide appeal.

Now, let me move forward to discuss the summary table (Table I) of our desegregation progress in enrollments and hiring each year. It illustrates, on an annual basis, the actual enrollment and employment at each state college and university. Historical comparisons are made every three to four years so that we know the percentage and actual number and percentage changes.

Next, there is a table (Table II) about first-time freshman enrollment which we recognize as being a major factor in achieving long-range student goals. It contains the actual number of first time freshmen in each institution and percentage by race. First-time freshmen data also give an indication of the success of special recruitment programs.

Table V, a summary table, gives the aggregate percentage of students who graduate from state colleges and universities in Tennessee, and we have those figures by individual institutions as well. We do this periodically so that we can see the difference between the numbers of students who enter as freshmen and the number of students who graduated, broken down by racial percentages.

Table VI pertains to retention and progression which are major concerns now in Tennessee. It shows the number of first-time freshmen in any given year who come back as sophomores, juniors and seniors, and we trace it for about five or six years for each progress report.

In Tennessee, last year for the first time ever, black student and white student retention were exactly the same but progression rates were different. We don't look at part-time freshmen when we talk about progression because we don't expect them to progress at the same rates. In order to track students, we use the

TABLE I

ACTUAL AND PROJECTED BLACK ENROLLMENT AND HIGHER EDUCATION EMPLOYMENT FOR SELECTED YEARS, BY INSTITUTION

Institution	Actual 1979 Total	Actual 1979 Black	Actual 1979 % Black	Goal 1980 % Black	Actual 1980 Total	Actual 1980 Black	Actual 1980 % Black	Goal 1981 % Black	Actual 1981 Total	Actual 1981 Black	Actual 1981 % Black	Goal 1986 % Black	Demographic Long Range Goals % Black
Regents' Universities													
APSU													
Undergraduate	4,731	995	21.0	13.0	4,302	913	21.2	13.0	4,260	895	21.0	—	15.5
Graduate	737	65	8.8	10.0	639	45	7.0	10.4	545	28	5.1	7.5	10.4
Total Students	5,468	1,060	19.3	—	4,941	958	19.4	—	4,805	923	19.2	—	—
Administrators	46	1	2.2	5.8	44	1	2.3	5.8	39	0	0	6.0	—
Faculty	187	5	2.7	3.2	182	4	2.2	3.3	188	3	1.6	3.6	—
Professionals	48	4	8.3	5.9	48	3	6.3	5.9	51	4	7.8	6.0	—
ETSU													
Undergraduate	8,567	263	3.0	3.4	7,851	256	3.3	3.6	7,925	264	3.3	—	2.8
Graduate	1,628	48	2.9	2.5	1,302	32	2.5	2.9	1,547	37	2.4	—	2.1
Total Students	10,195	311	3.0	—	9,153	288	3.1	—	9,472	301	3.2		
Administrators	81	1	1.2	3.5	59	1	1.7	3.5	63	0	0	4.1	—
Faculty	436	6	1.3	2.5	445	4	0.9	2.5	427	4	0.9	4.0	—
Professionals	62	0	0.0	3.6	53	1	1.9	3.4	71	1	1.4	4.0	—
ETSU Medical													
Medicine	37	2	3.3	2.2	104	4	3.8	2.3	146	6	4.1	5.0	15.8
Residents				7.0					75	3	4.0	TBD	—
Total				4.7					221	9	4.1	—	
Administrators	5				1	0	0		4	0	0	—	—
Faculty	120			3.0	85	0	0	2.0	141	0	0	4.7	—
Professionals	45	1	2.2	4.4	38	1	2.6	1.0	44	1	2.3	6.3	—

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TABLE I (cont'd)

ACTUAL AND PROJECTED BLACK ENROLLMENT AND HIGHER EDUCATION EMPLOYMENT FOR SELECTED YEARS, BY INSTITUTION

Institution	Actual 1979 Total	Actual 1979 Black	Actual 1979 % Black	Goal 1980 % Black	Actual 1980 Total	Actual 1980 Black	Actual 1980 % Black	Goal 1981 % Black	Actual 1981 Total	Actual 1981 Black	Actual 1981 % Black	Goal 1986 % Black	Demographic Long Range Goals % Black
Regents' Universities													
MSU	15,770	3,023	19.1	20.0	15,481	2,846	18.4	20.5	15,170	2,894	19.1	22.2	40.3
Undergraduate	4,915	877	17.8	20.0	4,604	803	17.4	22.2	4,344	603	13.9	16.0	35.3
Graduate	563	29	5.1	4.8	571	29	5.1	6.0	560	35	6.3	8.0	15.8
Law	21,248	3,929	18.4	—	20,656	3,620	17.5	—	20,044	3,532	17.6	—	—
Total Students													
Administrators	118	8	6.8	5.4	127	8	6.3	5.4	135	7	5.2	5.5	—
Faculty	788	30	3.8	3.8	785	31	3.9	3.8	794	28	3.5	4.0	—
Professionals	233	24	10.3	13.5	257	23	8.9	13.5	271	23	8.5	15.0	—
MTSU	9,144	897	9.8	9.3	9,623	897	9.3	9.8	9,491	858	9.0	9.8	12.3
Undergraduate	1,736	142	8.1	8.9	1,652	115	7.0	9.3	1,440	104	7.2	8.1	10.7
Graduate	10,880	1,039	9.5	—	11,275	1,012	9.0	—	10,931	962	8.8	—	—
Total Students													
Administrators	48			1.2	43	1	2.3	4.2	47	1	2.1	5.0	—
Faculty	421	6	1.4	3.6	415	4	1.0	3.6	423	11	2.6	3.8	—
Professionals	70	3	4.3	5.0	62	1	1.6	5.0	62	2	3.2	5.5	—
TSU	7,396	4,864	65.7	—	7,251	5,025	69.3	—	6,715	4,740	70.6	58.0	51.3 *
Undergraduate	1,042	344	33.0	—	1,067	380	35.6	—	1,015	358	35.3	32.1	28.9
Graduate	8,438	5,108	60.5	—	8,318	5,404	65.0	—	7,730	5,098	66.0	—	—
Total Students													
Administrators	93	64	68.8	—	88	61	69.0	—	79	53	67.1	—	—
Faculty	406	216	53.2	—	414	221	53.0	—	440	225	51.1	—	—
Professionals	115	80	69.6	—	124	85	60.0	—	160	115	71.9	—	—

THEC:10/24/81
MTN:jp

*Although TSU is not subject to the Committee's Monitoring Jurisdiction, data has been submitted to demonstrate the impact of TSU enrollments on statewide desegregation of public higher education. The long-range demographic goals for TSU are based on the actual pre-merger enrollments at TSU and UTN for fall 1978. The long range goals were established by the State Board of Regents. The 1986 goals were established by TSU to represent reasonable and attainable progress toward the long range goal.

TABLE I (cont'd)

ACTUAL AND PROJECTED BLACK ENROLLMENT AND HIGHER EDUCATION EMPLOYMENT FOR SELECTED YEARS, BY INSTITUTION

Institution	Actual 1979 Total	Actual 1979 Black	Actual 1979 % Black	Goal 1980 % Black	Actual 1980 Total	Actual 1980 Black	Actual 1980 % Black	Goal 1981 % Black	Actual 1981 Total	Actual 1981 Black	Actual 1981 % Black	Goal 1986 % Black	Demographic Long Range Goals % Black
Regents' Universities													
TTU													
Undergraduate	6,529	192	2.9	3.8	7,039	215	3.0	4.1	6,868	175	2.5	3.4	4.8
Graduate	1,136	19	1.6	2.9	1,039	24	2.3	3.1	909	17	1.9	2.3	2.5
Total Students	7,665	211	2.7	—	8,098	239	3.0	—	7,777	192	2.5	—	—
Administrators	61	2	3.3	2.9	72	2	2.78	3.0	72	1	1.4	3.0	—
Faculty	287	1	.3	2.2	297	2	.67	2.5	300	3	1.0	2.5	—
Professionals	89	3	3.4	5.9	93	2	2.15	6.0	100	1	1.0	6.0	—
Total SBR (Without TSU)													
Undergraduate	44,741	5,370	11.9	—	44,316	5,126	11.6	—	43,714	5,086	11.6	—	—
Graduate	10,152	1,151	11.3	—	9,236	961	10.4	—	8,639	789	9.1	—	—
Law	563	29	5.1	—	571	29	5.1	—	560	35	6.3	—	—
Health Professions				—	104	4	3.8	—	146	6	4.1	—	—
Total Students	54,893	6,550	11.9	—	54,227	6,120	11.3	—	53,059	5,098	9.6	—	—
Administrators	359	12	3.3	—	346	13	3.8	—	360	9	2.5	—	—
Faculty	2,259	48	2.1	—	2,209	45	2.0	—	2,273	49	2.2	—	—
Professionals	547	35	6.3	—	551	31	5.6	—	599	32	5.3	—	—
Total SBR (Including TSU)													
Undergraduate	52,137	10,234	19.6	—	51,567	10,151	19.7	—	50,429	9,826	19.5	—	—
Graduate	11,194	1,495	13.3	—	10,303	1,341	13.0	—	9,800	1,147	11.7	—	—
Law	563	29	5.1	—	571	29	5.1	—	560	35	6.3	—	—
Health Professions	57	2	3.5	—	104	4	3.8	—	146	6	4.1	—	—
Total Students	63,951	11,760	18.3	—	62,545	11,525	18.4	—	60,935	11,014	18.1	—	—
Administrators	432	74	16.3	—	434	74	17.1	—	439	62	14.1	—	—
Faculty	2,665	264	9.9	—	2,623	266	10.1	—	2,713	274	10.1	—	—
Professionals	662	115	17.3	—	675	116	17.2	—	759	147	19.4	—	—

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THEC: 10/24/81

TABLE I (cont'd)

ACTUAL AND PROJECTED BLACK ENROLLMENT AND HIGHER EDUCATION EMPLOYMENT FOR SELECTED YEARS, BY INSTITUTION

Institution	Actual 1979			Goal 1980	Actual 1980			Goal 1981	Actual 1981			Goal 1986	Demographic Long Range Goals
	Total	Black	% Black	% Black	Total	Black	% Black	% Black	Total	Black	% Black	% Black	% Black
Community Colleges													
Chattanooga State													
Total Students	4,395	921	15.6	17.0	4,933	735	14.9	17.0	4,913	697	14.2	15.0	18.3
Administrators	7	1	14.3	10.0	6	1	16.7	10.0	6	1	16.7	10.0	—
Faculty	93	10	10.8	10.0	103	11	10.7	10.0	102	12	11.8	10.0	—
Professionals	22	3	13.6	12.0	23	1	4.4	12.0	21	1	4.8	12.0	—
Cleveland State													
Total Students	3,180	102	3.2	7.0	3,594	121	3.4	7.2	3,091	99	3.2	3.5	3.8
Administrators	7			3.5	8			3.5	8	0	0	3.0	—
Faculty	93	3	3.2	4.0	92	3	3.3	4.0	91	3	3.3	4.0	—
Professionals	24	1	4.2	5.6	25	2	8.0	5.6	25	2	8.0	5.6	—
Columbia State													
Total Students	2,351	209	8.8	11.2	2,529	204	8.1	11.4	2,277	166	7.3	9.0	10.5
Administrators	10	1	10.0	11.1	10			11.1	10	0	0	11.1	—
Faculty	57	3	5.3	7.4	55	4	7.3	7.4	59	4	6.8	7.6	—
Professionals	15			6.3	13			6.3	14	0	0	6.3	—

THEC:10/24/81
MTN:jp

TABLE I (cont'd)

ACTUAL AND PROJECTED BLACK ENROLLMENT AND HIGHER EDUCATION EMPLOYMENT FOR SELECTED YEARS, BY INSTITUTION

Institution	Actual 1979 Total	Actual 1979 Black	Actual 1979 % Black	Goal 1980 % Black	Actual 1980 Total	Actual 1980 Black	Actual 1980 % Black	Goal 1981 % Black	Actual 1981 Total	Actual 1981 Black	Actual 1981 % Black	Goal 1986 % Black	Demographic Long Range Goals % Black
Community Colleges													
Dyersburg State													
Total Students	1,132	130	11.4	14.3	1,040	145	13.9	14.7	1,387	180	13.0	15.0	19.1
Administrators	11	1	9.1	10.0	12	1	8.3	10.0	9	1	11.1	10.0	—
Faculty	31	3	9.7	8.0	30	3	10.0	8.0	36	3	8.3	8.0	—
Professionals	2				2				2	0	0	—	—
Jackson State													
Total Students	2,729	374	13.7	17.6	2,651	427	16.1	18.2	2,684	377	14.0	16.0	22.6
Administrators	14	1	7.1	8.0	10			8.0	12	0	0	8.0	—
Faculty	69	5	7.2	8.0	67	4	6.0	8.0	66	5	7.6	8.0	—
Professionals	11	1	9.0	9.0	12	1	8.0	9.0	12	1	8.3	9.0	—
Motlow State													
Total Students	2,007	107	5.3	6.3	2,179	117	5.4	6.3	2,105	89	4.2	4.7	6.2
Administrators	17	1	5.9	8.0	17			8.0	15	1	6.7	8.0	—
Faculty	47	2	4.3	5.0	45	2	4.4	5.0	46	2	4.3	5.0	—
Professionals	5			15.0	4	1	25.0	15.0	4	0	0	15.0	—

THEC:10/24/81
MTH:jp

TABLE I (cont'd)

ACTUAL AND PROJECTED BLACK ENROLLMENT AND HIGHER EDUCATION EMPLOYMENT FOR SELECTED YEARS, BY INSTITUTION

Institution	Actual 1979 Total	Actual 1979 Black	Actual 1979 % Black	Goal 1980 % Black	Actual 1980 Total	Actual 1980 Black	Actual 1980 % Black	Goal 1981 % Black	Actual 1981 Total	Actual 1981 Black	Actual 1981 % Black	Goal 1986 % Black	Demographic Long Range Goals % Black
Community Colleges													
Roane State													
Total Students	3,224	97	3.0	4.0	3,571	108	3.0	4.2	3,467	120	3.5	3.7	3.7
Administrators	19	1	5.3	8.5	14			8.6	15	0	0	9.0	—
Faculty	68	5	7.4	6.0	81	5	6.0	6.0	89	4	4.5	6.0	—
Professionals	24	1	4.2	9.0	21	1	5.0	9.0	25	2	8.0	9.0	—
Shelby State													
Total Students	5,245	3,401	64.8	52.3	5,585	3,366	60.3	52.2	5,009	2,832	55.5	41.7	41.7
Administrators	24	9	37.5	25.0	26	10	38.0	25.0	28	9	32.1	25.0	—
Faculty	142	40	28.2	25.0	150	43	29.0	25.0	146	47	32.2	25.0	—
Professionals	63	33	52.4	40.0	57	31	54.0	40.0	39	22	56.4	40.0	—
Volunteer State													
Total Students	3,127	145	4.6	6.9	3,471	147	4.2	7.3	3,419	144	4.2	5.0	15.9
Administrators	8			9.0	8	0		9.0	13	0	0	9.0	—
Faculty	77	3	3.9	7.5	80	5	6.25	7.5	78	4	5.1	7.5	—
Professionals	5	1	2.0	10.0	5			10.5	7	0	0	12.5	—

THEC:10/24/81
MTH:jp

TABLE I (cont'd)

ACTUAL AND PROJECTED BLACK ENROLLMENT AND HIGHER EDUCATION EMPLOYMENT FOR SELECTED YEARS, BY INSTITUTION

Institution	Actual 1979			Goal 1980	Actual 1980			Goal 1981	Actual 1981			Goal 1986	Demographic Long Range Goals
	Total	Black	% Black	% Black	Total	Black	% Black	% Black	Total	Black	% Black	% Black	% Black
Community Colleges													
Walters State													
Total Students	3,870	233	6.0	4.3	4,009	200	5.0	4.5	3,730	175	4.7	—	3.3
Administrators	12	1	8.3	9.1	11	1	9.1	9.1	10	1	10.0	9.1	—
Faculty	75	4	5.3	4.8	75	2	2.7	4.8	77	1	1.3	4.8	—
Professionals	18	1	5.6	12.5	23	2	8.7	12.5	23	1	4.3	12.5	—
Total Community Colleges													
Total Students	31,460	5,710	17.5	—	33,562	5,570	16.6	—	32,082	4,879	15.2	—	—
Administrators	129	16	12.4	—	122	13	10.7	—	126	13	10.3	—	—
Faculty	752	78	10.3	—	778	82	10.5	—	790	85	10.7	—	—
Professionals	192	41	21.3	—	185	39	21.1	—	172	29	16.9	—	—
SBR System Staff													
Administrators	9	2	22.2	—	7	1	14.0	—	9	1	11.1	—	—
Professionals	18	2	11.1	—	16	2	13.0	—	14	2	14.3	—	—

THEC: 10/24/81
MTN: jp

TABLE I (cont'd)

ACTUAL AND PROJECTED BLACK ENROLLMENT AND HIGHER EDUCATION EMPLOYMENT FOR SELECTED YEARS, BY INSTITUTION

Institution	Actual 1979			Goal 1980	Actual 1980			Goal 1981	Actual 1981			Goal 1986	Demographic Long Range Goals
	Total	Black	% Black	% Black	Total	Black	% Black	% Black	Total	Black	% Black	% Black	% Black
UT System													
UT Knoxville													
Undergraduate	22,989	1,363	5.9	6.3	23,206	1,349	5.8	6.3	21,918	1,183	5.4	8.5	10.4
Graduate	6,373	309	4.7	5.0	6,312	320	5.1	5.5	5,908	264	4.5	7.1	11.0
Law	616	17	2.8	3.2	552	11	2.0	3.2	576	9	1.6	3.2	16.0
Veterinary Medicine	213	1	0.5	0.9	212	1	0.5	0.5	199	0	0.0	0.5	16.0
Total Students	30,391	1,690	5.6	—	30,282	1,681	5.6	—	28,601	1,456	5.1	—	—
Administrators	261	9	3.4	4.2	276	15	5.4	6.0	274	14	5.1	6.7	—
Faculty	1,407	43	3.1	3.6	1,384	41	3.0	3.6	1,337	32	2.4	4.2	—
Professionals*	468	27	5.8	6.7	526	26	5.0	6.7	570	27	4.7	6.5	—
UT Chattanooga													
Undergraduate	6,088	739	12.1	14.0	6,172	798	12.9	13.0	6,040	790	13.1	13.0	18.1
Graduate	1,457	102	7.0	9.0	1,428	120	8.4	10.0	1,443	92	6.4	8.0	18.0
Total Students	7,545	841	11.1	—	7,600	918	12.1	—	7,483	882	11.8	—	—
Administrators	73	6	8.2	8.2	82	7	8.5	9.6	86	9	10.5	7.3	—
Faculty	334	17	5.1	7.8	313	16	5.1	6.0	262	18	6.9	7.3	—
Professionals	65	8	12.3	12.9	83	12	14.5	16.0	77	7	9.1	13.2	—
UTCHS													
Undergraduate	375	24	6.4	8.0	370	20	5.4	8.0	367	18	4.9	8.0	22.0
Graduate	154	5	3.2	6.0	158	6	3.8	6.0	114	3	2.6	4.2	30.0
Medicine	718	12	1.7	2.3	759	12	1.6	3.0	769	11	1.4	2.0	16.0
Dentistry	550	3	0.5	1.3	586	5	0.9	1.0	555	6	1.1	1.6	16.0
Pharmacy	327	12	3.7	4.2	320	11	3.4	4.0	313	9	2.9	4.0	16.0
Total Students	2,124	56	2.6	—	2,193	54	2.5	—	2,118	47	2.2	—	—
UTCHS-Memphis													
Administrators	106	4	3.8	4.1	103	4	3.9	4.1	88	3	3.4	6.2	—
Faculty	710	21	3.0	5.7	691	15	2.2	2.5	657	15	2.3	3.1	—
Professional	579	66	11.4	11.7	696	71	10.2	11.4	918	98	10.7	11.9	—

THEC:10/24/81
MTW:jp

*1980 and 1981 includes research associates that were not classified as professional employees prior to 1980.

TABLE I (cont'd)

ACTUAL AND PROJECTED BLACK ENROLLMENT AND HIGHER EDUCATION EMPLOYMENT FOR SELECTED YEARS, BY INSTITUTION

Institution	Actual 1979 Total	Actual 1979 Black	Actual 1979 % Black	Goal 1980 % Black	Actual 1980 Total	Actual 1980 Black	Actual 1980 % Black	Goal 1981 % Black	Actual 1981 Total	Actual 1981 Black	Actual 1981 % Black	Goal 1986 % Black	Demographic Long Range Goals % Black
UTCHS-Knoxville													
Administrators	31	0	0.0	0.8	34	0	0.0	2.9	37	0	0.0	1.9	—
Faculty	56	0	0.0	0.6	66	0	0.0	3.0	74	0	0.0	4.3	—
Professional	695	13	1.9	2.0	729	16	2.2	2.4	759	16	2.1	6.6	—
UT Martin													
Undergraduates	4,681	701	15.0	15.0	4,940	800	16.2	15.0	5,189	815	15.7	15.8	19.7
Graduates	482	37	7.7	8.0	388	45	11.6	12.0	349	31	8.9	8.0	14.0
Total Students	5,163	738	14.3	—	5,328	845	15.9	—	5,538	846	15.3	—	—
Administrators	53	1	1.9	3.8	55	1	1.8	3.8	56	1	1.8	4.4	—
Faculty	226	2	0.9	1.2	235	2	0.9	1.2	242	2	0.8	4.9	—
Professional	60	5	8.3	9.5	67	5	7.5	7.6	63	6	9.5	5.3	—
Institute of Agriculture													
Administrators	42	0	0.0	0.0	43	0	0.0	2.3	36	0	0.0	5.0	—
Faculty	293	2	0.6	1.3	270	2	0.7	2.9	227	3	1.3	3.4	—
Professional	498	29	5.8	5.8	507	28	5.5	10.0	508	28	5.5	7.4	—
UT University-Wide Admin.													
Administrators	106	1	0.9	3.0	102	1	1.0	1.8	91	1	1.1	6.6	—
Faculty	—	—	—	—	—	—	—	—	—	—	—	—	—
Professional	150	2	1.3	2.8	150	2	1.3	2.0	137	1	0.7	3.7	—
Total UT System													
Undergraduates	34,113	2,827	8.3	—	34,688	2,967	8.6	—	33,514	2,806	8.4	—	—
Graduates	8,666	453	5.2	—	8,286	491	5.9	—	7,814	390	5.0	—	—
Law	616	17	2.8	—	552	11	2.0	—	576	9	1.6	—	—
Health Professions	1,828	28	1.5	—	1,877	29	1.5	—	1,836	26	1.4	—	—
Total Students	45,223	3,325	7.4	—	45,403	3,498	7.7	—	43,740	3,231	7.4	—	—
Administrators	672	21	3.1	—	695	28	4.0	—	668	28	4.2	—	—
Faculty	3,026	85	2.8	—	2,959	76	2.6	—	2,799	70	2.5	—	—
Professional	2,315	130	6.0	—	2,758	160	5.8	—	3,032	183	6.0	—	—

Source: Office of Institutional Research, The University of Tennessee; based on Student Information System Report, Fall 1981 preliminary data for EEO-6 report, and previous Desegregation Progress Reports.

TABLE 1 (cont'd)

ACTUAL AND PROJECTED BLACK ENROLLMENT AND HIGHER EDUCATION EMPLOYMENT FOR SELECTED YEARS, BY INSTITUTION

Institution	Actual 1979 Total	Actual 1979 Black	Actual 1979 % Black	Goal 1980 % Black	Actual 1980 Total	Actual 1980 Black	Actual 1980 % Black	Goal 1981 % Black	Actual 1981 Total	Actual 1981 Black	Actual 1981 % Black	Goal 198 % Black	Demographic Long Range Goals % Black
THEC Staff													
Administrators	9			12	7			12	9	1	11.1		
Professionals	8	2	25	13	7	1	14.3	13	9	2	22.2		
Grand Total (W/O TSU)													
Undergraduate	110,314	13,907	12.6		112,566	13,663	12.1		109,310	12,771	11.7		
Graduate	[illegible],818	1,604	8.5		17,522	1,452	8.3		16,599	1,179	7.1		
Law	1,179	46	3.9		1,123	40	3.6		1,136	44	3.9		
Health Professions	1,885	30	1.6		1,981	33	1.7		1,982	32	1.6		
Total Students	132,196	15,587	11.8		133,192	15,188	11.4		129,027	14,026	10.9		
Administrators	1,160	49	4.2		1,163	54	4.6		1,172	52	4.4		
Faculty	6,073	211	3.4		5,942	202	3.4		5,862	204	3.5		
Professionals	3,248	226	6.9		3,489	230	6.6		3,826	248	6.5		
Grand Total (W/TSU)													
Undergraduate	117,710	18,771	15.9		119,817	18,688	15.6		116,025	17,511	15.1		
Graduate	19,860	1,948	9.8		18,589	1,832	9.8		27,614	1,537	8.7		
Law	1,179	46	3.9		1,123	40	3.6		1,136	44	3.9		
Health Professions	1,885	30	1.6		1,981	33	1.7		1,982	32	1.6		
Total Students	140,634	20,795	14.8		141,510	20,593	14.6		136,757	19,124	14.0		
Administrators	1,245	111	8.9		1,251	115	9.2		1,251	105	8.4		
Faculty	6,260	427	6.8		6,356	423	6.7		6,302	429	6.8		
Professionals	3,364	306	9.0		3,613	315	8.7		3,986	363	9.1		

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NOTE: Personnel data provided by State Board of Regents and the University of Tennessee System.

TABLE II

FIRST-TIME FRESHMEN FOR SELECTED YEARS - 1977-81 FALL TERMS

Institution	Black First-Time Freshmen					Black First-Time Freshmen as a Percent of Total First-Time Freshmen				
	1977	1978	1979	1980	1981	1977	1978	1979	1980	1981
Regents Universities										
APSU	247	258	370	254	221	24.7	21.9	25.7	25.0	22.7
ETSU	66	73	54	62	54	4.2	4.1	2.9	3.5	3.1
MSU	459	395	381	303	337	21.3	20.1	19.1	15.8	19.0
MTSU	218	214	235	192	169	11.1	10.7	11.7	9.6	9.2
TSU	988	760	792	1,051	847	97.2	97.0	69.7	85.6	92.9
TTU	39	43	54	62	26	2.8	3.0	3.5	3.8	2.0
Total w/o TSU	1,029	939	1,094	873	807	12.7	11.5	12.4	10.4	10.6
Total w/ TSU	2,017	1,743	1,886	1,924	1,654	22.1	19.0	19.0	20.1	19.4
Community Colleges										
Chattanooga	213	247	233	223	191	14.3	14.6	14.4	13.5	13.3
Cleveland	47	28	21	36	32	5.6	2.9	3.0	4.6	4.6
Columbia	54	82	99	83	59	6.5	9.8	11.4	8.9	7.7
Dyersburg	52	42	53	46	58	15.4	12.4	15.4	15.1	14.1
Jackson	100	152	137	138	125	13.6	17.4	14.9	17.9	15.0
Motlow	31	22	34	26	22	8.5	6.1	8.8	5.6	5.4
Roane	35	30	30	36	40	3.1	3.3	3.3	3.7	4.5
Shelby	660	896	836	813	707	67.8	62.8	67.4	69.0	66.5
Volunteer	60	39	48	51	41	5.3	3.8	4.0	4.0	3.5
Walters	28	28	22	31	44	3.2	3.2	2.5	6.2	4.8
Total	1,280	1,566	1,533	1,483	1,319	14.7	16.9	17.0	16.8	15.4
University of Tennessee										
UTC	134	109	180	204	172	16.2	12.6	18.4	19.3	18.0
UTK	361	281	334	311	216	8.0	6.8	7.7	7.2	5.5
UTM	208	198	229	256	228	21.3	20.7	19.7	19.8	18.6
UTN	105	94				26.4	27.7			
Total	808	682	743	771	616	11.9	10.8	11.3	11.6	10.1
Total w/o UTN	703	588								
Grand Total w/o TSU	3,105	3,231	3,370	3,127	2,742	13.2	13.4	13.8	12.9	12.3
Grand Total w/ TSU	4,093	3,991	4,162	4,178	3,589	16.7	16.1	16.3	16.4	15.4

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65

TABLE V (cont'd)

TOTAL AND BLACK GRADUATES BY DEGREE LEVEL, TENNESSEE PUBLIC COLLEGES AND UNIVERSITIES, 1977-1981

DEGREE LEVEL	1977-78			1978-79			1979-80			1980-81		
All Institutions	Total	Black	% Black	Total	Black	% Black	Total	Black	% Black	Total	Black	% Black
Certificates	243	17	7.0	311	22	7.0	298	43	14.4	306	29	9.5
Associates	2,712	320	11.8	2,866	359	12.5	2,739	336	12.3	2,931	376	12.8
Bachelors	12,226	1,144	9.4	11,654	1,162	9.9	12,272	1,328	10.8	11,866	1,336	11.3
Masters	4,016	399	9.9	3,863	373	10	3,938	352	8.9	3,815	365	9.6
Educ. Specialist	88	8	9.1	82	5	6.0	131	11	8.4	124	7	5.6
Doctoral	1,001	17	1.7	959	27	2.8	901	22	2.4	1,048	24	2.3
Totals	20,286	1,905	9.4	19,735	1,822	9.2	17,999	1,789	9.9	20,090	1,772	8.8
All Institutions Except TSU												
Certificates	237	11	4.2	311	22	7.0	289	34	11.8	306	29	9.3
Associates	2,685	303	11.3	2,805	333	11.8	2,690	309	11.5	2,561	349	13.6
Bachelors	11,720	665	5.7	11,135	709	6.3	11,687	813	7.0	11,267	850	7.5
Masters	3,801	277	7.3	3,683	269	3.8	3,768	265	7.0	3,603	261	7.2
Educ. Specialist	80	4	5.0	77	4	5.1	124	8	6.5	117	6	5.1
Doctoral	1,001	17	1.7	959	27	2.8	901	22	2.4	1,048	24	2.3
Totals	19,526	1,277	6.5	18,970	1,395	7.3	17,179	1,148	6.7	18,902	1,519	8.0

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TABLE VI

STUDENT RETENTION: 1980 FIRST-TIME FULL TIME FRESHMEN ENROLLED AT ANY LEVEL IN 1981

	1980 Freshmen			1981 Enrolled Any Level					
				Total		Black		White	
	Total	Black	White	No.	%	No.	%	No.	%
APSU	778	192	561	432	56	115	60	302	54
ETSU	1,566	60	1,457	1,041	67	38	63	972	67
MSU	1,786	291	1,400	1,223	69	220	76	939	67
MTSU	1,900	184	1,678	1,189	63	119	65	1,047	62
TSU	1,003	943	45	627	63	594	63	22	49
TTU	1,385	61	1,290	952	69	36	59	894	69
Total w/o TSU	7,415	788	6,386	4,837	65	528	67	4,154	65
Total w/TSU	8,418	1,731	6,431	5,464	65	1,122	65	4,176	65
UTC	661	140	501	661	68	144	76	501	66
UTK	3,689	281	3,338	2,679	73	206	73	2,426	73
UTM	1,206	255	929	742	62	152	60	579	62
Total UT	5,865	726	5,028	4,082	70	502	69	3,506	70
GRAND TOTAL w/o TSU	13,280	1,514	11,414	8,919	67	1,030	68	7,660	67
GRAND TOTAL	14,283	2,457	11,459	9,546	67	1,624	66	7,682	67

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term of registration and the previous registration status, i.e., whether they were full-time or part-time, whether they were on a main campus or an off-campus center location, etc.—all of which is in the SIS system. We also use the student level, and credits earned, determined on the basis of credit hours required to stay a freshman, become a sophomore, and so on.

Let me move on to discuss research which we are conducting in Tennessee on student progression. Last year, in July, the Tennessee Higher Education Commission was awarded a two-year grant by the Ford Foundation to study student progression in higher education with an emphasis on black student progression. What we have recognized is that the federal court has focused its attention primarily on numbers and percentages of students enrolled, and numbers and percentages of faculty, administrators and staff hired. While these are important goals, we must also be concerned with equity and performance beyond mere admission and hiring. Therefore, over the next year and a half, we shall try to determine the reasons for slower student progression among black students so that we can recommend both public and educational policy to correct the problems. We have identified six categories of variables to relate to progression, namely: 1) demographic factors, which include age, sex, race, socio-economic status, hometown, and size of high schools; 2) academic factors, which concentrate both on the pre-college and in-college performance of students; 3) motivational factors, which concentrate on students' level of aspiration versus the pace at which they are going through college, and their fear of failure (we are interested in trying to determine self confidence and how that is related to students' progression); 4) financial factors, i.e., the students' resources, their type of aid (loan, merit scholarship, etc.), i.e., how are student economic situations related to their levels of progression?; 5) health factors, i.e., we want to know if certain students adapt to certain types of environments both mentally and physically better than others. We want to

know if certain types of students get ill more often than others, if students feel depressed or repressed in certain types of environments and whether that has an impact on dropping courses or adding courses; 6) institutional factors, i.e., we want to know if progression rates are different at various types of colleges and universities, such as regional universities, large public or private versus public or historically white institutions versus predominantly black universities. We are interested primarily in continuously enrolled full-time students, who are trying to make the normal progress through college and not the stopouts and dropouts.

In addition to determining the causes, I also expect to be able to show whether black students are penalized in the job market as a result of this flow of progression rates. In other words, the topic of the study is "the Causes and Consequences of Student Progression in Higher Education," and in the consequence phase we will be interested in trying to determine whether employers from industry and the public sector give any credence to students' levels of progress when they make hiring and other employment decisions. Do prospective employers care about the quality and pace of a student's academic progress? I'll give you an example. I was on the airplane with a Corps of Engineers recruiter who told me that if a student came to him with a grade point average (GPA) of B or better, then he would hire him or her at a higher level than a student with a lower GPA. The student with the lower GPA would have to prove himself first. We're finding that is also the case for students after having majored in engineering, for example, for eight years before finally getting a degree. They have to explain why it took them eight years to graduate or why they withdrew so frequently. The company on the other hand, wants to know if it will have a similar experience with the prospective employee when in regard to work habits, i.e., withdrawals, dropouts, including tardiness and productivity.

The study involves 24 colleges and universities in eight states. The 24 universities are divided into four categories with six universities in each. The

categories are: 1) large public universities with broad arrays of degree programs through the doctoral level; 2) historically predominantly black public universities; 3) regional public universities with limited graduate offerings; and 4) private universities with numerous degree offerings including graduate and professional programs.

The study began on July 1, 1981 and is scheduled for completion on June 30, 1983. It is designed in five phases for the next two years. For the first phase, we designed an instrument for the institutions in the study to indicate the rates of retention and progress in the institution since 1975, i.e., of the 1975 freshmen who entered the institution full-time, how many were sophomores in 1976 in the fall, how many were freshmen again, and how many did not return? We are also asking the institutions for the average SAT and ACT scores for entering freshmen in those years, and the average earnings of their students' parents or guardians. We are also interested in knowing if the students who later left the institutions are different than the overall student profile of that university; what types of financial aid the institutions award the students; and in what fields of study the students are majoring. All these data are classified by race so that we can determine if there are actual differences for a total of 36 variables.

The second phase of the study will be a student questionnaire instrument, which we will mail to 10,000 students to address those 36 variables. We want to know if the students who attend these institutions are different from the institutional profiles that we received in the beginning and how those differences specifically can explain some of the differentials in student progression rates. We plan to survey a random sample of students who are classified as freshmen, sophomores, juniors and seniors. We will stratify them by race and classification. We will attempt to define what normal progression in college is. Is it four years or more? Currently we are operating on the assumption that it is four years of study in curricula, designed for four years, and five years of study in curricula designed

for five years, i.e., engineering, pharmacy and some other professional programs. However, we expect to eventually define normal progression based on the norms of student progression rates.

The third phase of our study is a survey of faculty on campuses to find out about their perceptions and observations about what causes success in college, i.e., what kinds of behaviors and approaches to the educational process have they observed which cause success in the institutions. We also want to know some things about curricula design, and what faculty intend to accomplish when they design curricula. We are also interested in having faculty address some of the variables.

The fourth phase of the study includes site visits to the campuses and interviews with subsamples of students and faculty and advisory staff to verify what we were told on the mailed questionnaires.

The final phase of the study will be to interview industry personnel who visit college placement offices in order to recruit and employ students. We may, for example, create five hypothetical file folders based on profiles, built from student instruments, to ask industry to rate and rank order them in the order that they would hire the student and the level of potential they give them so that we can determine if progression is a factor. Or, we may just list the criteria so that employers can rank the employment criteria or the progression criteria according to things such as grade point average, student progression, SAT examination scores, and so on. At the conclusion of the study, perhaps one of the things that we will find as a factor in student progression is students' pre-college preparation. If that's the case, we might recommend a public policy directed at providing some pre-college types of programs such as is operated by the University of Pennsylvania to identify potentially capable students who are high school juniors and seniors and interested in a career in business.

In Conclusion

There are other types of data that would assist us in our planning efforts in Tennessee. First, personnel and manpower data. A system is needed which would store details about faculty, administrative and professional employees such as that provided in the biennial EEOC reports of the Federal Equal Employment Opportunity Commission. This type of data provides the necessary information for determining personnel progress and equity and it can be used to formulate policy in the area of equal employment opportunity.

The second type of information I find helpful is high school enrollment and graduation data. We have comprehensive data on that in Tennessee. Although I said earlier that long-range goals should not be based upon high school graduates, I believe that high school graduating seniors represent the largest single pool of entering college freshmen in any given year and for that purpose alone, not as a goal but as an estimated expectation, it is useful to us.

Third, more information about students is needed in order to explain retention, performance and progression. While many data systems allow us to show rates of retention and progression, we continue to be deficient in information about students' pre-college preparation and in college grade point average and other performance factors. Such data is essential in resolving student difficulties by identifying specific problems and in recommending solutions. These technical methods of analyzing and improving desegregation in higher education should not be underrated for they provide necessary sources for substantiating the claims that problems do exist and also provide the sources for solutions to historical problems.

Retention and Tracking: The Role of Faculty

Marie Jean Lederman
City University of New York

This presentation touches briefly on the history of the past decade of the City University of New York (CUNY) system of higher education including past and present profiles of our students and the outcome of the Board of Higher Education's resolution which led to the requirement that students demonstrate basic academic skills in reading, writing, and mathematics prior to their admission to the upper division of the University; lastly, it focuses upon the major theme -- the important role required of faculty with regard to setting up viable information and student tracking systems to track and retain students throughout the CUNY system.

The City University of New York is composed of nine senior colleges, seven community colleges, a technical college and a graduate school as well as an affiliated medical school. It is the largest municipal college system and the third largest university in the country. Our current undergraduate enrollment is 155,000; graduate enrollment is 16,000, and we have 7,000 faculty members. Our 1981-82 budget was $625.8 million. In the last eleven years, CUNY has undergone an unprecedented growth spurt and contraction. In 1969 we had 163,000 students; by 1975 we had a quarter of a million students. Our current enrollment of approximately 170,000 students brings us once again to the size that we were in 1969, but we are now an institution with a different student body.

There is no question that in the ten year period since 1969, CUNY has increased minority access and representation in its colleges. In 1969 the minority population was 21 percent: 15 percent black, 4 percent Hispanic, and 2 percent Oriental. By 1979, nine years after the start of a policy of Open Admissions, the minority population was 53 percent: 31 percent black, 17 percent Hispanic, and 5

percent Oriental; this is a pretty close approximation of the makeup of the graduating class of the New York City high schools. A recent study, Outcomes of Educational Opportunity: A Study of Graduates from the City University of New York by Barry Kaufman, Jim Murtha, and Jerzy Warman indicates that of CUNY's 1979 graduating class, 47 percent of those graduating with associate degrees and 31 percent of those graduating with baccalaureate degrees were minority students. In terms of the national perspective, CUNY graduates a proportionate number of minority students nearly three times that of post-secondary educational institutions nationally.

Today, we still have many traditional students at CUNY, i.e. white, male, 18 years old, just graduated from high school, but our population is largely a non-traditional one. It is non-traditional not simply in terms of a majority minority population but in terms of age, sex, parental educational level and status, and student employment: 40 percent of CUNY students are 25 years of age or older; 55 percent are women; most are employed -- many in full-time jobs; many are parents and, not surprisingly, many are single mothers; 82 percent have a family income of under $12,000, 40 percent of which are under $8,000; most are first generation college students; a third come from homes where a language other than English is spoken, and among the black students, a very large number are dialect speakers; only 30 percent of that total student population have high school averages of over 80 percent, and most are deficient in the skills of reading, writing, and mathematics.

In 1976, six years after the start of Open Admissions, CUNY's Board of Higher Education passed a resolution which stated that students could not enter the upper divisions of CUNY without mastering basic academic skills as determined by the chancellor. This mandate set into motion CUNY's present minimum competency testing program. At the time there was a distinct feeling, even on the part

of those who were totally committed to Open Admissions, that we had to look more closely at what we were doing in the classrooms in our seventeen undergraduate institutions. In many cases we were doing quite different things, and there was a general belief that we should share standards. The sixties had brought waves of all languages and dialects into English classrooms along with the idea that all people and, therefore, all languages and dialects were equally acceptable. Some educators believed that the insistence on standard written and spoken English was an imposition in an egalitarian society. However, it seemed clear to many of us that it was important for our students that we maintain our academic standards while respecting their first languages and dialects.

In retrospect, the chancellor made a wise decision in putting the minimum competency testing program into the hands of faculty task forces who were charged with the responsibility of developing or choosing tests, identifying appropriate skills levels, and making recommendations regarding the various components of the program and methods of implementation. One result of the testing program, the Freshman Skills Assessment Program (FSAP), has been to standardize the tests given at the seventeen undergraduate colleges used to diagnose skills of entering students. The tests are given to all students after they are accepted by a college but before they begin attending classes. This ensures that if students need help in basic skills, they will get it, will get it early, and will have numerous opportunities to retake the tests (if they do not pass them initially) prior to earning the 61 credits which, by definition, is the upper division.

The Reading Task Force chose a commercially developed standardized reading test. The Writing Task Force developed an essay test, to be read and graded by at least two readers; a third reader is used in cases of disagreement. (We do this for 33,000 students at a time.) A math test was developed by the Mathematics Task Force containing twenty arithmetic items and twenty algebra items.

More than half the students who entered the senior colleges as regular freshmen in fall, 1979 took at least one basic skills course in their first semester; - 97 percent of the students in the Senior College Special Opportunity Program (SEEK) took at least one basic skills course.

Basic skills instruction is a major part of today's institutional effort at CUNY; for example, one in five classes is either remedial or developmental. CUNY's earlier programs, designed to give special help to disadvantaged students, served as models for many of the later, larger programs begun after Open Admissions. The College Discovery Program in the community colleges began in 1964, and SEEK began in the senior colleges in 1966. These programs, as well as general basic skills programs started by the colleges individually in 1970, were characterized by varieties of assumptions, methodologies, and standards. In the first year of Open Admissions, there was little dialogue among the faculty and administrators of such programs. In 1974, the Board created the Instructional Resource Center (IRC) which collects and disseminates basic skills information to faculty and administrators and encourages research in basic skills instruction. The IRC mails out approximately 6,000 copies of our newsletter and other special publications (about 4,000 inside and 2,000 outside of the institution) in which we publish descriptions about our research and academic programs. Because we are a decentralized university and because of the increased demands for program assessment, it is important that we know what works best for the most students. Dean Michael Ribaudo will talk about the importance of a CUNY data base and research efforts in retention. I want to turn now to the role of faculty, for any program put into effect for tracking and retention of students must involve faculty. Faculty are basic to any meaningful record keeping system, but there are other reasons why faculty are key to the enterprise of student retention as well.

CUNY's Freshman Skills Assessment Program is an excellent case in point. Because basic skills faculty task forces which still exist and still shape our minimal competency testing program made basic policy recommendations about tests and placement levels and not outside "testing experts" or administrators, the program has been widely supported and accepted at CUNY. Such faculty involvement was and is crucial.

Among the significant studies in student retention are What Works in Student Retention by Philip E. Beal and Lee Noel and the monograph Retention and Attrition by Oscar T. Lenning, Beal, and Ken Sauer. Beal and Noel recommend six specific action programs, starting with faculty awareness and developmental activities. Next are peer programs, college assistance programs, learning support centers and activities, etc. In still another study, Studies of College Attrition: 1950-75, Timothy J. Pantages and Carol F. Creedon discuss an early warning system which begins with faculty, talks about improved faculty-student interaction and improved teaching of study skills. Lenning, Beal, and Sauer make six recommendations for action and research, four of which deal with faculty: improvement of faculty/student interaction; improvement of peer interaction, responsiveness to student complaints; and, improvement in instruction and academic programs. The central focus is upon what happens to students in the classroom.

Faculty are in the best position to encourage positive peer-group relationships and to teach as well as reinforce skills in all academic subjects. They are in the best position to understand the aspirations of their students, i.e. are student aspirations unrealistically high or low and what can be done to help students understand what they need to do in order to fulfill these aspirations. In brief, it is the faculty who know the most about the quality of a student's work, a student's growth during the semester, and a student's motivation and attitude. We are, in effect, talking about a changing role for faculty, about different kinds of

faculty/student relationships, and about faculty becoming instrumental in diagnosing student problems and, further, knowing how to help students get the kind of tutoring or counseling help they need.

Faculty should want to learn how to teach better and how to create an environment in which the student is an active and not a passive learner. Faculty should become aware of the extra-curricular activities available in the college because these are important in the lives of many students. In short, faculty need to be able to exert a pull for students to stay in the institution stronger than the pull for students to leave because the pull to leave is often very strong: economic, health, peer pressure, the attitudes of men in the lives of female students or the attitudes of students' families.

It is particularly important that faculty take attendance in the classroom. If attendance is taken, students know that they cannot survive by floating in and out of classes. Moreover, when faculty take attendance, they signal to students that someone notices who they are. The message is, "You need to be here; I want you in this class." For some students, this may be the first time such a message is given. In addition, faculty need to have clearly expressed expectations of academic performance. If we do not agree among ourselves about what we expect students to do, students cannot fathom what we want them to do. As one who was both a parent and a teacher, I believe that people rise to expectations and that it is defeating to assume that students cannot perform certain academic tasks.

Faculty need to be sensitive to psychological withdrawal which occurs in the classroom, i.e. students who sit there but are clearly off in a private world, who come to class but do not do any work, or who are so isolated they don't participate in the classroom or talk to anyone after class. Faculty need to be sensitive to the differences among their students in terms of language, class, family background, and so on. More active classrooms where students work together in groups should be encouraged. Students could exchange names and telephone numbers with other

students and work together outside of class; this can aid students in forming those support groups with each other which are sometimes crucial to the learning experience as well as the social experience of college.

Administrators must change if they expect a change in their faculties; in particular, the system of rewards must be modified. As long as faculty are promoted and tenured on the basis of publications and nothing else, and as long as the system signals that attitudes toward students in the classroom do not matter, faculty are in a bind; they must behave one way to get promoted and tenured and another way in the classroom even though administration neither knows nor really cares what happens there. Change means that faculty must be backed by their administration in the daily tough academic decisions they make on the basis of students' attendance and academic performance.

Administrators must convey to faculty the problem of student retention and, perhaps, the connection between student retention and faculty jobs. Traditionally, faculty have seen their role as practitioners of a particular discipline and not their broader role in the lives of their students. The reality is that faculty are on the front line where they can make a direct impact on students. They are able, through their behavior, either to signal students that they are welcome or to let them know that they are not. A tracking system to increase student retention will break down if faculty does not have a stake in that system. Therefore, faculty should be involved in planning, designing, and implementing such an information system. The challenge to administrators is to figure out the most effective ways to get faculty involved and to encourage and support that involvement through the rewards system of the institution. If student retention is important, it is everyone's business, and no one's more than the faculty.

Retention: A Follow-Up Study of Entering Freshmen at City University of New York

Michael Ribaudo
City University of New York

In 1969, there were approximately 165,000 students enrolled in the various senior and community colleges which made up the City University system. In 1970, the University launched an Open Admissions program which essentially guaranteed a seat to all high school graduates in New York City. During the mid-seventies, as a result of this program, the enrollment reached a peak in one year of nearly a quarter of a million students. In 1976, the City of New York experienced a severe budgetary crunch which resulted in the abolition of free tuition at the University (a policy in place since the founding of City College in 1847) and a modification, or more accurately, a restriction, of the Open Admissions policy. This resulted in one of the largest retrenchments of faculty ever undertaken by any college or university in this country -- nearly 1000 faculty members were fired, and enrollments at the various CUNY units began to decline precipitiously. While we are still experiencing a modest decline in overall student enrollments, we seem just about now to be leveling off to a total number of students about equal to the number enrolled prior to Open Admissions.

We do not have a university-wide data base in place as yet but we are moving, ever so slowly it seems, in that direction. The fact that we have so many students to keep track of should have been reason enough to set up a systemwide data base. The major impetus for the data base at this time, however, seems to be our increased reliance on the State of New York as our primary funding source (prior to 1979, the State and City shared in the funding of the University).

Albany (the state capital) would rather deal with a single entity, the University, rather than what in actuality amounts to a federation of eighteen

separate colleges. We now look to the State Division of the Budget to allocate the funds to run the colleges and to the State Education Department to register our academic programs. These agencies prefer to deal with the central office, which now serves as a "broker", acting in the interest of each of the individual colleges. For this reason, it is essential that we know what is actually going on at each of the colleges. What Oklahoma has in place now, we hope to have two or three years from now. However, the University would like to have some of the answers such a data base could supply before that.

There is a growing recognition that retention is a systemwide problem. At the moment, we are trying to determine the magnitude of that problem and to identify those factors which are most highly related to the retention/attrition phenomenon. We are trying to get a handle on which factors are under the control of the University and of its colleges and which are, therefore, amenable to change. Although we do not have a true systemwide data base yet, we do collect, on a routine basis, quite a bit of data from the colleges about their students and the kinds of academic programs those students are involved with. Our office, the Office of Academic Affairs, in conjunction with the University's Office of Institutional Research, received funds from the State last spring to undertake a systematic follow-up study of the 33,000 freshmen who entered the University as first time students in the fall of 1978. Although the major focus of this study is on the effectiveness of remediation, we are looking at many of the things one would normally look at in studies of retention as well. Following 33,000 students is not an easy task, even with a sophisticated data base in place, which is not the case at CUNY. As I mentioned earlier, however, we do get a substantial amount of information supplied to the central office by the colleges, and it is this information we have tried to capitalize on in conducting this follow-up study. Let me take a few minutes now to describe the so called "data flow" operations in place and then to share with you some preliminary findings.

The University has what is probably the most efficient centralized admissions apparatus in the country in so far as systems are concerned. A student who wishes to come to one of the seventeen undergraduate units of CUNY fills out a single application blank on which he or she rank orders, in order of personal preference, up to six colleges and programs within those colleges to which he or she would like to be admitted. Such an application is filled out by about 80 percent of the approximately 60,000 students who are high school seniors in New York City high schools each year. The University Applications Processing Center (UAPC) processes this application by converting the information supplied by the student into a machine-readable form as a first step. Under a separate contract UAPC has with the New York City Board of Education, UAPC collects from most of the city high schools all academic grading information for students in attendance and therefore has the capability of matching the student's college application data with what essentially amounts to a cumulative high school transcript for each applicant. In deciding where to allocate the applicants, therefore, UAPC can look concurrently at both the preferred choices listed by the student for admission, as well as the detailed high school record to see if the student meets the entrance requirements for that particular college and program within that college.

Once the computer at UAPC has decided on both whom to admit and where to allocate those accepted for admission, a computer tape is produced which contains much of the demographic information the student supplied on his or her application form as well as a record of the student's academic history prior to coming to college. We used this allocation tape as the basis for setting up our data base on the fall 1978 entering freshman cohort.

At the point of admission to the University, the college to which a student has been allocated notifies the student that prior to actual registration, the student must come to the college and sit for a battery of placement examinations.

Although each college is free to test its students in any area it sees fit, the University requires that at a minimum, those testing batteries include the Freshman Skills Assessment Tests. These are the three common tests in reading, writing, and mathematics which serve as minimum competency tests for all CUNY students, as Dean Lederman described earlier.

The fall, 1978 entering freshman class was the first class subjected to this systemwide testing program. Although the tests are administered at each of the unit campuses, the colleges are required to send to CUNY's central office a machine-readable copy of the test results for each of their students. For this cohort, we were able to get clean, usable test data for approximately 95 percent of the total group of first-time freshmen. And so, at this point, we had at our disposal the student's application data, prior high school record, and test score data -- all in machine-readable form.

Approximately three weeks after the close of registration for any given semester, each college is required to submit to the central office a complete record of that semester's registration organized on a student-by-student basis. These "show-registration" tapes include basic demographic information about the student, and a complete listing of all the courses and sections of those courses for which the student has registered. This information serves as the basis for the University's funding requests and as documentation for federal, state, and local assistance claims.

At the end of each semester, each college completes its reporting responsibility by submitting to the central office one last tape which is formatted in a way very similar to the registration tape submitted at the start of that semester. This "performance" tape lists the grades received in each of the courses the student was registered in that semester. Therefore, we finally had available to us the admissions data, high school transcript data, testing data, first semester's registra-

tion data, and first semester's performance, again, all organized on the level of the individual student. By matching and merging on the basis of social security number successive registration and performance tapes, we have been able to bring our "mini" yet longitudinal data base up to the completion of the spring 1981 semester and registration into the fall of 1982 for the students who entered the University in fall 1978. Despite the fact that conceptually this process seems far from problematic, it did require considerable computer and programming time. As a result, however, we are now in a position to address some real questions about the performance of our students and their retention both within the University as a whole and at the individual colleges at which they began their careers within the University. What we have found to date is that although a file like this is helpful in answering questions related to academic performance, it raises more questions about the phenomenon of attrition than it answers.

We've already looked at the more traditional assumed correlates of retention such as high school average, test scores upon entry, and performance in college courses and have done so for various sub-groups of students such as senior versus community college students, students who met the academic requirements for admission to the senior colleges versus those who did not have the paper credentials for such admission but were accepted to the four-year schools anyway as part of a special program designed for economically and educationally disadvantaged students, and so forth. Again, we wanted to see how much of the variation in retention over five semesters after initial enrollment could be accounted for on the basis of these measures.

However, like most of the literature on retention studies indicates, we were only able to account for about 10 percent of the variance in the attrition/retention dichotomy when we looked at these measures concurrently. We did find, however, that the most predictive measure of retention into the fifth semester for students

at the senior colleges admitted under the SEEK program for economically and educationally disadvantaged students was performance in college over the course of their first year in college, as measured by first year cumulative grade point average. For these SEEK students, the vast majority of whom are minority students, the correlation between first year GPA and retention into the fifth semester was .40. By contrast, the correlation between GPA and retention for senior college students who met the traditional criteria for admission was only about .15. One speculates that for these SEEK students whose prior academic history looks very different from that of the more traditional student, success in college as measured by getting good grades has a more reinforcing effect and it is in the nature of this positive feedback wherein the explanation for increased probability of retention lies. Academic success or failure for that matter for students accustomed to success may not necessarily lead to outcome decisions resulting in retention or attrition.

We are now at the point where we realize that in order to understand our retention problem we must go to the students themselves. Through additional State support, we are in the process of sending a mailed questionnaire to all of the students in the fall, 1978 cohort who left the University prior to the start of what would have been their fifth semester in attendance -- about 17,000 of the initial 33,000 students fall into this category. We want to know from them first hand why they left, what they are doing now, have they any plans to resume their education, either at CUNY or elsewhere, and so forth. We have also come to realize that not all attrition is necessarily "bad", although the word itself certainly carries a negative connotation. For the student who comes to a community college and studies data processing and leaves prior to the completion of the associate's degree to take a $17,000 a year position as a computer programmer, attrition might not be such a negative outcome. The same might be said for a senior college student who,

after attending a college in his home borough for two semesters, decides he'd like to continue his education away from home and transfers to the State University campus at Buffalo. Again, how about the student who leaves after a year or so but in that time was able to raise his reading level from an 8.0 grade equivalent to that of 12.5 in that time?

We plan on following this 1978 cohort, both in terms of its performance in college and in the students' lives after they leave the University, as graduates or not, depending on the individual circumstance, for a period of at least ten years -up until about the end of the spring 1987 semester. One of our problems at CUNY is that we often find ourselves in a fishbowl; we are a very carefully scrutinized place both by the public at large and by the officials upon whom we depend for our funding. There is a good deal of reluctance at releasing our findings, especially when they involve cross college comparisons. Each of our colleges is, in a very real way, in competition with the others for the same pool of potential students and, by many accounts, that pool is getting smaller and smaller all the time. We do believe, however, that our efforts at CUNY in this regard are generalizable to other institutions and hope that, in the future, we can share our findings in an atmosphere similar to this particular gathering -- non-threatening, open and honest, among individuals clearly concerned with a problem that affects all of us.

ACT 101: The State of Pennsylvania
Higher Education Program for Disadvantaged Students

Conrad Jones
Pennsylvania Department of Education

The ACT 101 program was conceived in 1971 to retain undergraduate minority students in the State of Pennsylvania. The primary purpose of the program was to attract, retain and graduate minority students; one of its outgrowths has been a student tracking system. Said simply, ACT 101 is an equal opportunity program run out of the Pennsylvania Department of Education with direct state funding granted annually on a competitive basis. It is providing access to both public and private institutions, and in that sense it is quite different from several other such programs. Because centralized systems are often vulnerable to criticism when they try to exercise program control, we set the program up differently, i.e. we labeled it a grant program and placed it outside the arena of our state-owned system.

In the '60s, 2-3 percent of the minorities in Pennsylvania were in postsecondary institutions, and only 1/2 percent were Hispanic. It was understood that if the state would pay for supportive services for minority students, colleges would accept the program, and students would take the risk of entering into it. We were in a growth period for education, so it was harder to sell higher education for minorities and the disadvantaged back in the '70s. Today it is easier, and we wish we had more money to accommodate all the people who have been begging us to enter the program. The point we often make to "critics" is that institutions have been offering special services to athletes for a long long time, and it has worked. We are saying that it works for a much larger student population. Pennsylvania today has a 8-9 percent minority representation among students overall in its postsecondary institutions. It is clear that the door has opened. ACT 101 started with 1,500 students in 1971. We now have 10,000 students, and we are growing by 1,000-1,500

students per year with no growth in the number of programs. If we had the money we could not only increase the number of programs but also significantly increase the student population.

On year-to-year retention we are currently at 84 percent. We have never been lower than 78 percent, and we've never broken into the 90s. Our cohort data on retention was started in 1979 and may be available in a few months. Up until four years ago, three-fourths of all Hispanic students going to Pennsylvania postsecondary institutions were going by way of ACT 101 programs. Currently, less than one-fourth of the Hispanics going to postsecondary institutions are going through ACT 101; likewise about one-fourth of all black students are going by way of ACT 101. A fringe asset is that ACT 101 has brought about a substantial increase in black administrators, counselors and residence hall staff on campuses. In Pennsylvania ACT 101 has been a far more effective tool for the integration of staffs than affirmative action has ever been. It works simply because we are putting money out there in order to staff positions. Our programs employ on the average 55 percent black and 5 percent Hispanic professional personnel which parallels the racial breakdown of our program student enrollments.

Nine years ago when I came into the program, ACT 101 was 85-90 percent black. We made a conscious effort to expand the program and move away it from a black focus while still maintaining it as a black program. Removing race as an issue bought us much credibility in terms of institutional politics and in the larger political arena in the state legislature. One of the benefits is having black administrators on campuses with program and financial authority. It forces these black administrators to have access to financial aid packages and admissions offices, which typically black faculty or black administrators in other situations do not. Programmatic money forces these relationships.

Three years after the beginning of the program, it was said point blank that ACT 101 people could not recruit students although it was very easy. Our people knew how to do it so the institutions had simply turned to our people and said go find us the ACT 101 population. By placing it in the official guidelines, however, student recruitment became an institutional responsibility. It made a big difference. Institutions started learning how to recruit minority students, especially poor ones.

Many of our program staff have become tenured faculty. One became a provost, one a vice-provost at a major university, and another a vice president; several have become deans and several associate deans. In short, ACT 101 is a training ground. People who have the ability are given the exposure, and, if they can do the job well, they should be able to move up in the system.

ACT 101 has published guidelines approved by the state board of education which set up eligibility criteria for students, the types of services to be provided, and the reporting or monitoring system that the state requires for all institutions. We also publish a brochure which lists all ACT 101 programs in operation in the state. We require all interested institutions to apply for funding by submitting a proposal each year in accordance with a format that we at the Department of Education have prepared. Those proposals are read by an independent team of readers from outside of the agency. The proposals are ranked and those rankings are accepted by us. We then fund those that we can afford to fund. No institution is guaranteed funding from one year to the next, and we think that there are some positive things that happen because of that. One, it makes institutions aware that they are in competiton with one another. Two, it forces the schools to commit in writing the details of their programmatic ideas; and third, the process gives our staff documented programs to monitor, thereby increasing the accountability of the colleges and universities participating in the ACT 101 program.

We fund by using a cost per student formula. Small programs (20 students) can be funded at up to $900 per student, whereas a very large program that serves 350 students is funded at $300 per student. The average is approximately $500 per student.

Another interesting point is that the institutions are matching state dollars by roughly 1.2 to 1 (or $5.5 million). These matching dollars are not heat, light and electricity; they are salaries. We require each institution to submit a program narrative and a detailed budget with justification prepared in accordance with the provisions of our agency's budget manual.

Every program is annually evaluated by an external consultant. Consultants are hired from as far away as Washington, D. C., New York, New Jersey, Ohio, and Pennsylvania. They are briefed and made familiar with our process, and each evaluator evaluates three programs. Since initiating evaluations and audits, virtually all questions about the program that have come up in the legislature have been eliminated. The state-wide program is validated because we can defend each and every campus-based program based on our formal evaluation and audit procedures.

Once the evaluations are received we turn them back to the institutions; and if there are objections they can be challenged by written rebuttal. The rebuttal is then carefully reviewed by office staff. Based on what the evaluators have said and how the institutions have responded, we make decisions on the submitted proposals for the upcoming year to determine whether or not programs will be continued. Evaluations allow us to determine what programs are doing, how well they are operating, whether or not institutions are living up to the proposals they have prepared and if the programs will be renewed. If there are problems, programs may be cut back, given additional attention or dropped. We believe in this approach because it works and because the evaluations give the program an iron-clad defense.

In addition to central office staff, we employ two field people - one stationed in Philadelphia, the other in Pittsburgh - who are each on campuses throughout the state four days each week. It is their job to monitor institutional programs which gives us more insight into institutional programs in addition to the evaluations provided by external consultants.

We require each institution to allow for a 1/2 percent set-aside of its grant for in-service training. These monies go into a statewide pool and the institutions have control of that money collectively, not singly. We have set up eastern and western regions, each of which has an executive committee comprised of directors, who vote on how the set-aside funds are to be used for training for themselves and their staffs. Again, if we only gave every institution $1,000 for in-service training, the impact would be minimal and not necessarily beneficial. However, when we bring together 5, 10 or 30 institutions and collectively they use the funds to bring in first-rate consultants, they can really do some good things for their counselors, tutor coordinators or directors.

We examine very carefully the data we collect and decide what information we can afford to tabulate and publish. Some of it is embarrassing to certain institutions. The data collected make it very easy to make judgments about which schools are doing what with what kids. If some institutions are taking students with a given kind of intake characteristics and others are taking the same kind of students and the former are pumping out a collective GPA of 2.4 while the latter are pumping out a collective GPA of 1.8, someone is going to raise questions. If the schools are not doing the job that we think they ought to be doing and we are providing the money, it gives us grounds to do something about that.

We are operating many ACT 101 programs whose students offer stereotypes that may require defending. When the programs are overwhelmingly composed of minority students, they cannot be adequately defended against political forces that

question this particular use of taxpayers' dollars. There are currently great numbers of disadvantaged white kids in this country, and it is to everyone's benefit to broaden these supportive services programs to include them. It simply neutralizes, in a political sense, a lot of your data because it's no longer black data vs. white data. It is about data on disadvantaged kids versus non-disadvantaged kids.

The typical ACT 101 student scores below 250 on the verbal SAT and even lower on the mathematics section. They are placed in multiple sections in their respective colleges and universities and are not isolated from other students; they all take courses in basic writing and/or basic mathematics which are regular institutional offerings. We expect the students to complete their undergraduate studies in no more than four and one-half to five years; state aid to such students terminates after eight semesters.

What program pieces seem to make a difference? Summer programs make a big difference. The benefit is being able to orient the students to college life in a summer program in small group settings where they get a lot of attention and where you can give them training in basic academic skills that they must be able to master by September. The other key factor is the ability of the director. If the program director is a poor administrator, the program will be poorly administered. Our nine years of experience has told us: if reports are late, or if reports are inaccurate, or if staff is not well coordinated, then look for a poor administrator as director and for poor program performance.

As far as student tracking is concerned, once you start setting up the central system using social security numbers, you should be able to follow that student right straight through, including any transferring in and out or dropping in and out through to graduation or termination. There are two elements to be considered: one is how do you do a better job and make sure the students move on to graduation, the other is how do you track those students. One of the things I think

we all fail to do relative to Adams vs. Bell is to challenge the Office of Civil Rights' (OCR) figures. We should look at the kinds of data we need in developing our systems in order to produce student-oriented outcomes and treat OCR's need as a secondary priority. OCR's data is not helpful to the states. OCR never analyzes it. OCR never gets back to the states about the data. You know the story.

In sum, we believe that Pennsylvania has a good model. We are deliberately directive and that scares people. We don't take chances. We tell people what we want them to produce, and we monitor them to assure the outcome.

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